HMO INDUSTRY PROFILE

Volume 1: Benefits, Premiums, and Market Structure in 1989

by
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1990 Edition

Data from the Group Health Association of America's
Annual HMO Industry Survey

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Volumes in the Series

Volume 1: Benefits, Premiums, and Market Structure in 1989
Volume 2: Utilization Patterns, 1988
Volume 3: Financial Performance, 1988

Each volume incorporates analysis of both current characteristics and trends.

A NOTE FOR USERS OF VOLUME 1

This year's edition of the *HMO Industry Profile* provides statistics on HMO benefits, premiums and market structure as of March 31, 1989. This year's volume does not report on a few items that have been covered in the past. These areas are: HMO membership composition and some of the detail on specific coverage of various benefits offered by HMOs.

The reason for this is that this year's Annual HMO Industry Survey—which is the basis for this *HMO Industry Profile* series—represents the final stage of a change in the timing with which Survey data is collected. Because this year's survey followed by only six months last year's rather than the usual year, we decided to reduce respondent plan burden by omitting a few items which historically have had only limited change from year to year.

Users of the 1990 edition of this volume can reference volume 1 of the 1989 edition of the *HMO Industry Profile* for additional information on HMO membership composition and detail on coverage of specific benefits. The 1989 edition of this volume also serves as a useful reference for some topical areas which are not repeated each year. In particular, the 1989 edition includes information on plan coverage of preventive services, perceptions of employer pressures for various changes, the use of Medicare wrap-around products, and the factors exerting upward pressure on HMO premiums.

PREFACE

These are historic times for the Health Maintenance Organization (HMO) industry. Over the past several years, the industry has had unprecedented expansion, both in the number of plans and in total enrollment; in addition, the characteristics and sponsorship of plans has diversified. In late 1988, major amendments were adopted to the federal HMO Act to provide plans with greater flexibility to respond to market pressures and competitive forces. Indeed, the very success of the HMO approach to providing health care has resulted in the more widespread adoption of some features of HMO practice in the fee-for-service system and led to the considerable focus today on managed care.

Under these circumstances, it is critical that information and analysis exist so that the experience of the most successful models of managed care can be understood. The development of relevant data upon which the structure, performance, and trends in the HMO industry can be assessed is of particular importance. For this reason, the Group Health Association of America, Inc. (GHAA), the oldest and largest trade association representing prepaid managed health care systems, initiated the Annual HMO Industry Survey. The *HMO Industry Profile* is the major vehicle through which data from this survey are distributed.

This series of reports presents the results of GHAA's fourth Annual HMO Industry Survey. In its multiple volumes, the report provides information on a number of dimensions of HMO structure, performance, and trends, including benefits, premiums, utilization rates, and financial measures. Each volume incorporates analysis of both current characteristics and trends.

These reports provide the most comprehensive and detailed set of information on HMOs available, with a range of information virtually unsurpassed by that developed by any other segment of the health care industry. The reports reflect the efforts of GHAA's Research and Analysis Department under its Director, Marsha Gold, Sc.D. The reports also would not have been possible to produce without extensive industry cooperation. The considerable time spent by plans in providing data is particularly impressive given today's competitive climate and economic pressures.

Developing a statistical base for any industry is a long-term process. We continue to make improvements in the content and format of the Survey and *Profile* based on feedback from our members and the broad spectrum of other users of the reports. We have been encouraged that the range of information provided has been useful to a diverse set of audiences and welcome further suggestions or advice as we proceed further with this effort.

James Doherty
President and CEO
Group Health Association of America, Inc.

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Professor Sam Shapiro of Johns Hopkins University provided advice on survey methods, as he has from the initiation of this project. We are particularly grateful to him for his continuing interest and support for this project and for the contribution he has made to it.

As always, we wish to thank all the HMOs that responded to the survey, taking time to collate from across their organizations the requested statistics. Without the support of the industry, this report would not exist.

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HIGHLIGHTS

This report is based on the Group Health Association of America's fourth Annual Health Maintenance Organization (HMO) Industry Survey. The mail survey was sent to all HMOs operational on or before January 1, 1988. Findings are for 1989 or for March 31, 1989, when they refer to a specific point in time, except as noted. Findings also include an analysis of trends based on responses to questions in 1989 and data from prior years' surveys covering 1985–1988.

The 332 responding plans enrolled 25.7 million members on March 31, 1989. Responding plans represent 58% of all surveyed HMOs; their members include 74% of the national enrollment in the plans for this period. Plans over 3 years old had a higher response rate to the survey: 63% of these plans responded; these plans included 75% of the enrollment in all HMOs over 3 years old. In addition, with the maturation of the industry, most plans were in this category in 1989. Unless otherwise stated, the highlighted findings refer to HMOs over 3 years old ("established" plans).

Benefit Structure in 1989

- In 1989, virtually all plans covered primary care visits, hospitalizations, outpatient mental health, home health, and skilled nursing care among other benefits in their best-selling packages. Ninety-five percent covered pharmacy benefits; 93% covered inpatient mental health services.

  — The best-selling package covered, on average, 70.4% of a plan's enrollment.

- Eighty-one percent of plans covered hospitalization with no patient payment requirements; none limited days. All plans also covered primary care visits with no limit on visits; 60.1% required a copayment. The most common copayment was $5.

- The percentage of plans requiring patient cost sharing for primary care visits and hospitalizations varied by plan characteristics. For primary care visits, between 28.0% and 79.4% of plans used copayments depending on type of plan. For hospitalizations, the percentage requiring any cost sharing ranged from 0% to 33.3%.

- Almost all plans covering pharmacy services (93.3%) did so with no dollar limit. Eighty-eight percent required some patient cost sharing. Most typically, this was a copayment which tended to be $3–$5. Twelve percent used a deductible; the most common deductible was $50. Pharmacy benefits are the only HMO benefit where deductibles are used to any meaningful extent.

- The typical pattern of mental health coverage in HMOs was a 20-visit/30-inpatient day benefit, although there was variation which was more likely to involve greater than lesser benefits. A third (32.6%) required some patient cost sharing for inpatient mental health benefits; 77.4% required it for outpatient mental health benefits.

- Sixty-nine percent of plans covering skilled nursing care placed a limit on the days; the most common limit was 100 days. Only 9.3% of plans limited the number of home health visits; 19% had other limits. Cost sharing was less common; 8.2% included it for skilled nursing care and 13.9% for home health services.

Benefit Delivery

- Plans were more likely to compensate hospitals on the basis of days of care or units of service rather than using aggregate payment methods such as discharges or per member rates. The three most common compensation methods were: charge based payments, all inclusive rates per day, and all inclusive rates per day by patient type.

  — Fifty-seven percent of plans covering enrollees with Medicare as their primary payor paid the same rate for Medicare enrollees as others; 43.4% did not.

- On average, 87.5% of a plan's enrollees had pharmacy coverage. In providing these benefits, 12.8% of plans covered over the counter drugs, and 83.7% birth control pill and devices, in at least one of their packages. In-house pharmacies were more likely in plans organized around large group practices. Seventy-seven percent of group and staff model plans had in-house pharmacies compared with 9.8% of networks and IPAs.

- The two most common approaches for use of generic drugs were to limit coverage to generics unless a physician specially requested otherwise or to require greater patient payment for brand names than for generics. Twenty-eight percent of plans did not vary coverage for brand names and generics.

- Formularies were used by about half the plans. Only 19.5% of group and staff model plans made no use of a formulary compared with 62.6% of networks and IPAs. The majority of plans restricting coverage to drugs on the formulary allowed for exceptions.

- Therapeutic substitution by a pharmacist was allowed by slightly less than half of the plans. Therapeutic substitution most commonly was at the pharmacist's discretion within established parameters or upon consultation with a physician.

Transplant Coverage

- Almost all HMOs covered kidney, corneal, bone marrow, and liver transplants for children with biliary atresia or a related condition. Seventy-three percent covered heart transplants; 59.0% liver transplants for other conditions; 49.8% heart-lung transplants, and 37.6% pancreas transplants.

Trends in Benefits and Coverage

- HMO benefits historically have tended to be comprehensive, with cost sharing limited. It does not appear that the basic structure of the HMO benefit package changed between 1988 and 1989; in addition, over half the plans included about the same amount of cost sharing on balance as in 1988. However, cost sharing within the HMO benefit package increased on average in 1989, with 40.6% of plans increasing the amount of cost sharing and few (2.1%) reducing it. This pattern is similar to that found in 1988.

- Twenty-two percent of plans indicated they had expanded benefits in their best selling package in 1989. The most common expansion was for mental health and substance abuse (about a quarter of all plans expanding benefits). Thirty-one percent of plans reduced benefits in 1989. Most of these plans noted cost sharing increases rather than elimination or limitation of benefits.

- The distinction between the structure of HMO benefits and indemnity insurance benefits did not change from 1986 to 1989. While indemnity benefits tend to be structured around deductibles and coinsurance, the HMO benefit package continues to focus on first dollar coverage although there has been some growth in cost sharing for these services.

- Trends in cost sharing varied by type of benefit. The most noticeable change from 1986 to 1989 was an increase in the percentage of plans using copayments for primary care visits and an increase in the mean amount charged.

- There was little change in the percentage of plans covering transplants between 1986 and 1989.

Premiums, Employer Contributions, and Trends

- Sixty-two percent of plans renewed their largest single account in January, with July the only other month common (17.5%).

- In 1989, the mean monthly premium in the largest account was $102.55 for a single contract; it was $266.49 for a family contract.

- The average employer contribution was 88.0% for single contract and 77.0% for family contracts. This means that, on average, the employee paid $13.05 per month for single coverage and $60.61 per month for family coverage in 1989.

- In [illegible]% of plans, the employer paid the entire premium for single contracts; 26.1% paid the entire premium for family coverage. The percentage employer contribution was lower for federal contracts than private employer contracts; state and local government also contributed less to family coverage than private employers.

- From 1988 to 1989, HMO premiums for the largest account increased 17.4% for single contracts and 18.5% for family contracts. Premium increases were lower for the largest plans, with an average 14% increase for plans with 100,000 enrollees or more. As a result, the average increase experienced by an *enrollee* in 1989 was lower than the average premium increase across plans.

- Although premium increases for HMOs were higher than in previous years and exceeded the growth in the medical care component of the Consumer Price Index for this period, they were below the reported increases in indemnity premiums.

Rating Methods and Trends

- Although community rating tended to be the rating method of choice for HMOs in 1989, there was a shift in specific rating methods used reflective of the additional authority for adjusted community rating allowed by the 1988 Amendments to the federal HMO Act. Under adjusted community rating, federally qualified plans are allowed to set rates prospectively based on the anticipated experience of an employer group with some restrictions to encourage affordable coverage for smaller employers.

- Thirty-one percent of plans made some use of adjusted community rating for private employer groups in 1989; none used it exclusively. On average, 10.6% of a plan's total enrollment was rated using this method in 1989.

- Despite this change, the most commonly used rating method in 1989 continued to be standard community rating or community rating by class, both of which involve the development of plan-wide rates. Fifty-five percent of plans used this form of rating exclusively for private employer groups with half of these (24.5%) using only standard community rating. These patterns could change in the future as more plans utilize the authority for adjusted community rating to respond to employer preferences and market place pressures.

  — Plans in the Mid-Atlantic states were most likely to use plan-wide community rating methods; this also was more likely to be the case for group model plans, plans with 50,000 members or more, plans eight years old or more, nonprofit plans, federally qualified plans and plans owned by "others."

- Twenty-six percent of plans indicated that they made some use of experience rating for private employer accounts in 1989 other than the prospective group adjustment allowed under adjusted community rating; only 5.8% used this exclusively. However, only 38.2% of plans using experience rating used some form of retrospective adjustment to the rates as is common practice for indemnity products. Both the percentage of plans using experience rating and the average percent of total enrollment rated by this method (15.4%) were unchanged from 1988.

  — Plans using experience rating were more likely to be networks or IPAs, located in the East Central region, smaller and younger, nonfederally qualified, and owned by Blue Cross and Blue Shield organizations or commercial insurers.

- At the time of the survey, 87.5% had the information needed for standard community rating, 72.9% for community rating by class, 63.0% for adjusted community rating, and 55.8% for experience rating. (An additional 17.4% expected to have needed information for adjusted community rating within 12 months; the comparable figures for experience rating and community rating by class were 13.9% and 9.7%).

HMO Diversification

- In 1989, 43.7% of plans offered "additional benefit options or "lines of business" other than the traditional HMO comprehensive health care benefit."

- Thirty-four percent of plans offered one or more of five specific diversifications. These included preferred provider organizations (22.9% of plans), indemnity options (18.8%), open ended HMO options (16.4%), exclusive multiple options (11.0%), and employer self-insured options (20.5%).
  - — Plans owned by commercial insurers were considerably more likely to be diversified, with 69% offering one or more of these five options.

- The extent of diversification in 1989 was similar to that reported for 1988, a somewhat surprising result in light of the media focus on HMO diversification. There are several possible explanations: diversification may be less than perceived, diversification may be occurring but not identified in the survey which focuses on HMO entities; or diversification could be more recent.
  - — Open-ended or self referral HMO options are likely to have increased since the survey was done as plans begin to incorporate the added flexibility allowed by the 1988 Amendments to the federal HMO Act.

- Forty-seven percent of plans had agreements or were in the process of implementing agreements with other HMOs to address the needs of national accounts or employers who wish to offer HMO options under a single umbrella entity.

Employer Requests for HMO Data

- In 1989, over 90% of plans received some request for data on utilization, cost of services, and the financial stability of the plan. Eighty-three percent received requests relating to quality of care; 76.7% received requests on enrollee demographics.

- These requests tended to cover a substantial share of a plan's enrollment, on average. Forty-six percent indicated that utilization requests applied to more than a quarter of the plan's enrollment; 41% had requests of this magnitude for data on cost of service and 42% of data on the financial stability of the plan.

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I. INTRODUCTION

This report, volume 1 of a three-volume series, provides a statistical profile of and detailed information on the current characteristics of the Health Maintenance Organization (HMO) industry; it is based on the fourth Annual HMO Industry Survey of the Group Health Association of America, Inc. (GHAA). The three volumes are

1. Benefits, Premiums, and Market Structure in 1989 (this volume)
2. Utilization Patterns, 1988
3. Financial Performance, 1988

Trend analyses are incorporated into each volume, as well as selected special topics collected on a periodic rather than annual basis.

This volume includes information on aspects of the benefits offered by HMOs, the premiums charged, and the methods by which premiums are set. Selected aspects of market structure, including HMO efforts to diversify into related areas, also are covered. For readers who desire survey highlights, key findings follow the acknowledgments. The text reviews and discusses the survey findings. The final section, detailed tables, addresses specific needs for statistical data on HMOs in general and by plan characteristics.

All tables report separately and in aggregate results for established plans (over 3 years old) and for new ones (3 years old or less). The characteristics of the established plans are emphasized in this report. Statistics for new plans are noted when they differ from the established ones. The detailed tables can be used for reference on statistics cited. These tables also serve as a source of data on all responding plans and give breakdowns by plan characteristics, and by plan age.

As the HMO industry has grown and diversified, the demand for data on it has increased. According to the most recent GHAA data, 591 HMOs enroll over 34.7 million Americans.[1] One in seven Americans is enrolled in an HMO, and this number is likely to grow considerably within 10 years.[2]

An increasing number of employers offer HMOs in part because they provide a vehicle to providing a fairly comprehensive benefit package at a reasonable cost. The same cost concerns lead many employees to select this option. For example, 62% of employers responding to a recent health benefits survey indicated that they offered HMOs in 1988 and 33% of all eligible employees joined.[3] According to the U.S. Bureau of Labor Statistics, HMO market share for employer-provided health insurance by large and medium sized firms grew to 19% in 1988, up from 13% in 1986 and 7% in 1985; HMO market penetration in some areas, such as California and Minnesota, is higher.[4] HMOs are being similarly considered by other payers such as Medicare and Medicaid, although the percentage of HMO enrollment from these programs is still relatively small.

GHAA, founded in 1959, is the oldest and largest national association representing prepaid, managed health care systems. The GHAA Annual HMO Industry Survey was initiated 4 years ago as one of several strategies designed to address the need for information on the industry as it grows and evolves. This survey represents the most comprehensive recent effort to examine characteristics of HMOs.

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[1] These data are based on figures included in *GHAA National Directory of HMOs, 1990* (Washington, D.C.: Group Health Association of America, June 1990). The statistics are as of December 31, 1989. Total enrollment at that time was 34,748,354.

[2] Actual enrollment percentages vary widely by geographical areas; nationally HMO enrollment includes 14% of the population of the United States (*Ibid*). There are difficulties in projecting future trends; differing estimates have been made. Kenneth Abramowitz of Sanford C. Bernstein and Company has estimated that 25% of the private pay population would be in HMOs by 1992 and 40% by 1997 (Kenneth S. Abramowitz, *Future of Health Care Delivery in America* (New York: Sanford C. Bernstein and Company, Inc., 1988, pp. 26-27)). More conservative estimates have placed HMO enrollment in 1995 at 20%-30% of the population (Karen Davis et al. *Health Care Cost Containment* (Baltimore: Johns Hopkins University Press, 1990). These estimates are based on an Arthur D. Little study predicting 25%-30% enrollment, and an Alex Brown and Sons estimate predicting 20%-25% enrollment.

[3] *Foster Higgins Health Care Benefits Survey, 1989* (New York: A. Foster Higgins and Company, Inc., 1989). These results are based on a survey of over 1,943 employers with programs covering 12.4 million employees. The survey was distributed through 42 business coalitions in August 1989; the respondents may not be representative of all employers. Compared to the 1988 survey, both the percentage of employers offering an HMO and the percentage of employees enrolled were relatively constant after considerable growth in 1986 and 1987. In 1986, 54% of employers offered HMOs and 19% of eligible individuals were enrolled (*Johnson Higgins Corporate Health Care Benefits Survey, 1986*). According to the Survey, virtually all very large employers (over 20,000 employees) offer HMOs, as do over three quarters of employers with over 1,000 employees.

[4] Bureau of Labor Statistics. *Employee Benefits in Medium and Large Firms, 1988* , Bulletin 2336 (Washington, D.C.: U.S. Bureau of Labor, August 1989). For information on HMO market penetration by state, see GHAA's *National Directory of HMOs, 1990*. These data indicate that at year end 1989, 30.8% of all California residents, and 28.3% of Minnesota residents were enrolled in an HMO.

II. OVERVIEW OF METHODS

Data Source and Methods

The fourth Annual HMO Industry Survey was a mail survey sent to all HMOs listed in the *GHAA National Directory of HMOs, 1989*, which includes all HMOs, regardless of type or GHAA membership status. The survey was restricted to those of plans operational on or before January 1, 1988.[5] The lengthy questionnaire covered a variety of topics, including plan characteristics, the structure of various benefits offered, premium rates and rate-setting methods, enrollment and utilization, employer data requests, diversification, and financial performance.

The questionnaires were mailed in mid April 1989; a postcard was sent as a reminder to respond a month later, and a second mailing to HMOs that had not responded took place three weeks later in the second week of May 1989. In late June 1989, personalized follow-up letters were sent to all nonresponding plans that had responded to previous surveys; some telephone calls for follow-up were also selectively made.[6] In the survey, confidentiality of data was assured. Most questions referred to status as of March 31, 1989. Utilization and financial statistics were requested for 1988 because plans can most readily provide these on a calendar year basis. Although survey execution and content was generally consistent with prior years, the timing of the Survey and data request period for items covered in volume 1 was shifted to enhance the timeliness and utility of the resulting analysis.[7]

The survey was sent to 580 of the 614 plans listed in the *Directory*, with the remaining 34 plans excluded because their operational dates were after January 1, 1988. Based on the Survey responses, 10 were eliminated from the sampling frame. In most cases, this was because the responding plans indicated that component plans surveyed were more appropriately aggregated as a single plan; in one case, a plan was dropped because it had terminated operations. The net impact of these changes was that 570 plans were considered in identifying the level of response to the survey.[8]

Response Analysis

A total of 332 plans responded to the survey. The Appendix contains a listing of these plans. Overall, respondents to the survey represent 58.2% of all plans operational in 1988; their 23.7 million members include 73.5% of all enrollees in HMOs in the United States at year end 1988.

Appendix Table A-1 includes a tabular display of response rates for various types of plans, based on year end 1988 information included in GHAA's *National Directory of HMOs, 1989*, which was the source used in identifying plans surveyed. General findings and patterns of results are summarized here.

Response rates to the survey were higher for established plans (those operational for over 3 years) than new plans (those operational for 3 years or less), although a higher percentage of these later plans responded this year than in prior years. Sixty-three percent of established plans responded versus 48.0% of new plans. With the maturation of the industry, 70% of all plans surveyed in this cycle—and 92% of the enrollees in these plans—were in the established plan category. As a result, statistics for these plans provide a reasonable representative of the typical experience of most HMO enrollees.

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[5] This was done because very young plans may not be sufficiently established to result in meaningful responses to a number of the items covered in the survey (e.g., utilization and financial performance) and their structures may not be very stable. In addition, we wished to reduce the administrative burden on these very young plans. Although this criteria eliminated a number of plans, the HMO enrollment in these plans is small. We did not feel that omitting these plans would detract from the ability to generalize to the HMO industry.

[6] Returned questionnaires were logged and manually reviewed and edited. A limited number of telephone calls were made to clarify responses to individual items or verify potentially erroneous data (e.g., employer contribution rates of less than 50% to verify that the employee-employer share had not been transposed). SPSS-PC software was used to analyze the results.

[7] This represents the second and final stage of a shift to a spring collection cycle, linked to a decision to use a different and more current request date for other than utilization and financial data. An April collection date allows for the most current utilization and financial reporting which is feasible. Because the majority of contracts renew in January, the largest shifts in plan benefits, premiums, and market structure activities are linked to this period. The March 31, 1989 collection date provides data which probably is reasonably representative of that which is occurring for that calendar year. As noted in the User's Note at the outset of this volume, a few items without rapid change (on Membership Composition and for detail on some specific benefits offered by HMOs) were omitted during the transition year to ease the burden on plans surveyed only six months before, and enhance the response rate to the Survey.

[8] In addition, a small number of responding plans submitted more aggregated statistics for the utilization and financial data in situations. In particular, for plans in two states a unified submission was made for several plans of common ownership in that state. These consolidations which have a small effect on analysis for volumes 2 and 3 of this Survey were allowed to maximize the response rate to the Survey and enhance its generalizability. However, a few other submissions were not allowed when the aggregate appeared inconsistent with Survey intent, which is to profile the HMOs in the industry (e.g., a submission merging data based on both HMO and preferred provider organization operations for a single plan).

Within established plans, 48% or more of all plans responded of each plan type which was able to be examined based on data in the *Directory.* However, the level of response did vary somewhat by plan characteristic. Response rates were higher for plans with 8 or more years operational experience than for younger ones; just under three quarters of the former responded while 55% of the plans 4-7 years old responded. Response rates also increased with plan size and were higher for nonprofit plans than for-profit plans (73% versus 56%). Group and network model plans were most likely to respond (73% and 67% respectively); IPAs had the lowest response rate (59%) of all model types. Some of these patterns could be attributable to the interrelationship of plan age and other characteristics. In addition, GHAA member plans were more likely to respond to the survey (78% versus 48% for nonmembers). There was only limited variation in the response rate for federally qualified and nonqualified plans (65% versus 59% respectively).

Because older and larger plans were more likely to respond to the survey, responding plans represent a larger share of the national HMO enrollment than they do plans. Responding plans represent 73.5% of the total enrollment of surveyed plans. Responding established plans include 75.2% of all enrollees nationally in established plans. The responding new plans include 55.1% of the enrollment nationally in new plans with one year's operational experience or better. Patterns of response by enrollment are similar to those by plan. The differences in response rates for new plans may be related to the intensive organizational efforts needed at the initial operational stage.

Item response for most questions included in this volume of the survey was fairly complete, although the number of plans that responded on each item varied. Responses to items requesting premium rates and employer contribution were lower than for other items.

The number of responding plans included in the analysis of each item is shown on the table for that item; in some cases, this is less than the total number of respondents to that item. This is because some analyses required that plans have complete data on several items (e.g., premiums for 2 years to compute increases; both premium and employer contribution to compute the percentage employer contribution). These omissions also result in some minor inconsistencies across the same statistics in different tables.

Comparison of Respondents to Last Year's Survey

Response rates were higher to this year's survey than to last year's survey, reflecting the institutionalization of the survey process and the growing support for it in the industry. Among established plans which have the focus for the analysis, the response rate has increased from 44% to 55% to 63% over the past three years. (For all plans, the 58% response rate for all surveyed plans this year compares to 45% and 33% for the 1989 and 1988 edition of the *Profile,* respectively.)

As response rates have improved, those responding also have become more representative although there are still some differences consistent with the variation in response rates noted above.[9] This increases the ability to generalize from the survey. Unfortunately, it also makes comparisons of year-to-year changes more difficult, particularly for those items which vary considerably by plan characteristic. Hence, differences in respondents across the survey years should be considered in analyzing changes in year-to-year responses to the survey.

Of the 332 plans used in this year's analysis, 204 were included in the 259 plans responding last year. This could understate the overlap across years to some extent because of industry consolidation and the difficulty of tracking plans of changing ownership. A greater degree of overlap also is likely for established plans since their response rates have been higher to the survey.

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[9] For example, the *Directory* data for 1988 indicate that 55% of all established plans are IPAs versus 52% of respondents to this year's survey. The 54% of established plan respondents organized on a for-profit basis compares with 61% of all established plans. The enhanced response by IPAs is particularly notable this year. Similarly, starting last year, insurer owned plans were became increasingly represented in the survey although the absence of statistical data on the overall number of these plans precludes an assessment of response rates by ownership category.

Analytical Techniques and Survey Limitations

The GHAA Annual HMO Industry Survey provides the most comprehensive and detailed source of information currently available on the HMO industry; nonetheless, there are limitations that should be recognized in interpreting the data.

The response rates and response patterns to the survey should be considered in interpreting the results and generalizing to the industry. Because their response rates are higher and also because they represent the plans including the vast majority of HMO enrollees, established plan statistics are emphasized in the text. In addition, most tables are arrayed to present separately the results for plans of various characteristics; results for established plans, as well as in total also are presented.[10] The reader should place greater confidence in the ability to generalize results for established plans.

Statistics by plan characteristics can be used to develop a better estimate for generalizing information to particular types of plans. However, caution should be exercised in drawing inferences on causality. Many plan characteristics are interrelated, and many other factors may influence plan performance. Additionally, small differences in statistics for categories of respondents should generally be overlooked because they may easily represent random variation.

Because the responding plans are not identical, caution should be used in comparing data across surveys of different years as noted previously. Because of the critical importance of assessing trends, certain questions were included in this year's survey to assist in identifying trends solely from the responses to this year's survey. In addition, some year-to-year comparisons are presented based solely on plans reporting in each of those years. Although these subsets of plans provide a less generalizable industry-wide estimate for any given year than the full set of plans responding that year, they indicate the changes occurring within a cohort of plans and can be used to validate trends apparent from the cross-sectional comparison across years.

Finally, the design of the analysis uses the individual HMO as the unit of analysis rather than weighting plans by total enrollment. The approach used allows a characterization of the industry as it is reflected in its individual plans, which was the reason it was selected over a weighted analysis. This was felt to be particularly useful since the industry is undergoing changes. Although the approach taken is desirable in a number of ways, it does not necessarily show the average experience for an individual enrollee in an HMO because a disproportionate number of enrollees are in the larger plans.

The statistics in Table 1, which show the distribution of enrollees across responding plans, can be used to identify the ways that specific findings are likely to affect the experience of individual HMO enrollees. For example, although findings for plans 16 years old or older apply to only 13.8% of all responding plans, these plans include 40.2% of all enrollees in responding HMOs. The reader can estimate how a particular statistic translates into the average experience of HMO enrollees by weighting the statistics given for each plan characteristic by the share of the total HMO enrollment represented in plans of that type.

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[10] Although statistics are presented for plans in operation 3 years or less, this year's report does not break these down generally by plan characteristic. This is because of the relatively small number of total plans included in this group this year (29) and the lack of variability on many characteristics.

III. CHARACTERISTICS OF RESPONDING PLANS

This section summarizes the major characteristics of responding plans. An overview of characteristics is presented first, followed by a brief comment on some of these characteristics.

Overview of Plan Characteristics

Table 1 presents data on the distribution of responding plans and enrollees among plans of different characteristics. Characteristics of established plans (those operational for over 3 years) are discussed first, followed by those of new plans (those operational for 3 years or less).[11]

Plans Operational for Over 3 Years

Of the 332 responding plans, 303 had been operational for over 3 years. These plans represent 91% of all plans that responded to the survey and 98% of all enrollees in responding plans. These plans had 25.2 million enrollees in total as of March 31, 1989.

Fifty-seven percent of plans operational for more than 3 years are IPAs, with the remainder spread relatively evenly among staff, group, and network model plans. However, group model plans have approximately the same share of enrollment as IPAs (36.2% versus 35.0% respectively). Two-thirds (63.7%) of the established plans are federally qualified. Fifty-nine percent are for-profit, and 41% nonprofit. In comparison with last year's responding plans, this year's set of plans includes a larger proportion of IPAs and for-profit plans. This reflects both response rates which are more closely aligned with the industry (see Section II of this volume), and the maturing of the industry with a number of plans moving up from the "new" to the "established" categories this year.

The median enrollment for established plans was 37,735 members as of March 31, 1989; the mean was 82,962. Most plans are at the younger end of the age distribution (51% are 4 to 7 years old), but enrollees are disproportionately distributed in the older plans. Forty-one percent of enrollees in established plans are in the 15.2% of plans operational for 16 years or more; 28.9% of enrollees are in the 12 responding plans that were 26 years old or older. Plans are located nationwide but are concentrated most heavily in the Mountain/Pacific and East Central regions. Their ownership varies considerably.

Plans Operational for 3 Years or Less

Plans operational for 36 months or less (new plans) comprise nine percent of the respondents to the survey and 2% of the total enrollment of all the respondents. In comparison with established responding plans, the new plans are considerably more likely to be IPAs (83.4%), for-profit (69.0%), and nonfederally qualified (69.0%). They also were considerably more likely to be provider sponsored (44.8%).

The median enrollment was 9,133, with 79.3% of plans having fewer than 20,000 members and only 10.3% of plans having 50,000 members or more. (The mean enrollment was 20,384.) New plans were more likely than established ones to be based in the South Atlantic region.

Comment on the Nature of Various Plan Characteristics

HMOs are complex organizations. As a result, any method of classification results in some simplification. In considering plan characteristics, readers may want to be aware that some plans use a mix of HMO models; obtain federal qualification for some service areas only; and have an ownership pattern which is complex.

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[11] For this purpose, the years in operation are computed based on plan reports of the date they became operational; any year in which a plan was operational for part of the year is considered as a full year. For simplicity, all plans with an initial year of operation in 1987 or later are considered to have three or fewer years in operation for analyses in this volume based on March 31, 1989. The remainder are considered as "established." This approach probably understates the number of new plans since the 1989 data are for March of that year. In addition, because the HMO industry is maturing, an increasingly smaller proportion of all respondents are new plans.

GHAA in its analyses of plans bases results on the predominant model types, asking plans to determine which definition among four choices—staff, group, network, and IPA—best describes their plan.[12] However, plans may have multiple types of arrangements with physicians to develop a provider network appropriate to the service area of the plan and its characteristics. These arrangements could result in use of plan components representing a variety of HMO models.

Exhibit 1 provides information on the extent to which plans use a variety of model components in structuring their delivery systems and how these vary by model type. Twenty-nine percent of established plans (versus 20.7% of new plans) have components in their plans reflecting other than their predominant model type. Staff model plans are most likely to use such components (61.0%), followed by network model plans (51.3%). Group model plans and IPAs are least likely to use them (27.5% and 17.4% respectively). Of plans using mixed models, approximately three-quarters of their enrollment is included in the predominant model type on average.

Federal qualification also may be handled diversely within a single plan, with plans federally qualified in some service areas and not others. Of the 63.7% of federally qualified plans, 46.9% were federally qualified in all service areas and 16.8% in some service areas. Of the 31.0% of new plans federally qualified, 24.1% were qualified in all service areas.

HMO ownership also is complex. The categories used were selected to highlight major differences in types of plans by ownership. However, plans may not fit in any one category and for some uses composites of categories or alternative categories could be more appropriate.

For example, in some cases, insurers have combined with provider organizations in a joint venture to establish HMOs. In cases where the insurance company appeared to have most ownership, these plans or chains were classified as "other insurer." This was done to allow for a separate profiling of most of the plans sponsored by commercial insurers. Hence, insurer-owned plans also include some plans with shared provider ownership.

Plans considered in national HMO chains represent a diverse set of plans with characteristics that could vary considerably in terms of their impact on performance. Most of these chains represent multistate HMO organizations which are not owned by insurers or providers. In addition, some of the plans included in this category include part ownership by

Exhibit 1
Extent of Use of Mixed Model Plans,
Various Measures by Predominant Model Type,
Plans Over Three Years Old, 1989

Measure of Mix	**Total**	**Predominant Model** **Staff**	**Group**	**Network**	**IPA**
Component Other Than Predominant Type (All Plans)					
% Yes	29.4%	61.0%	27.5%	51.3%	17.4%
(Number of Responding Plans)	(303)	(41)	(51)	(39)	(172)
Distribution of Enrollment by Model (Mixed Plans Only)					
Staff	23.7%	71.8%	4.1%	3.7%	5.4%
Group	17.7%	6.3%	73.6%	4.7%	9.4%
Network	24.4%	13.6%	10.5%	72.3%	9.4%
IPA	34.1%	8.6%	11.7%	18.7%	75.4%
(Number of Plans)	(88)	(25)	(14)	(19)	(30)

Source: GHAA's Annual HMO Industry Survey

insurers or providers, with no particular party of clear dominance.

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[12] The following definitions are used in the GHAA Annual HMO Industry Survey: (1) *staff*, an organized prepaid health care system that delivers health services through a salaried group that is employed by the HMO unit, (2) *group*, an organized prepaid health care system that contracts with one independent group practice to provide health care services, (3) *network*, an organized prepaid health care system that contracts with two or more independent group practices to provide health services, and (4) *IPA*, an organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations or physicians in independent practice, and/or with one or more multi-specialty group practices (but the plan is predominantly organized around single solo-specialty practices to provide health services).

Provider-owned plans include both independent HMOs and those that are part of national chains. Hence, a complete inventory of plans owned by national chains (versus independently owned) would include some plans in this category, as well as those in the national HMO chain category and almost all of the plans in the other insurer category.[13]

Finally, depending on the purpose, some may want to consider both independent HMOs and other HMO categories together. The 10 plans in the other category include cooperatives, university-sponsored plans, church-owned plans, public plans, and other similar kinds of HMOs. These plans, particularly those not publicly owned, share a number of characteristics with some of the independently owned plans.

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[13] Although Blue Cross-Blue Shield plans are affiliated nationally, there is no national ownership. These plans are based in the states and involve ownership arrangements with the state or more locally based Blue Cross and/or Blue Shield organization. Hence, they form a unique category from both national chains and independent plans.

IV. BENEFITS AND COVERAGE

This section provides information on the structure of benefits offered by HMOs. It describes how several specific types of benefits are handled by HMOs. As a special topic, statistics are included on the methods used by HMOs in compensating hospitals, as well as in delivering pharmacy benefits. In addition, information on transplant coverage is also presented, along with an analysis of trends for benefits in general and for transplants. The information in this section is based on survey responses to structured items.

Description of Selected Types of Benefit Structures

Tables 2-5 summarize information on how HMOs structure several types of benefits: primary care visits and hospitalizations; pharmacy services; mental health services; and skilled nursing facility and home health services. These benefits were selected because they contribute to a considerable share of plan expenses, are diverse in nature, and have been the focus of substantial interest. Information is included on the extent to which patient payment requirements or limits are applied to these benefits (Table 2); on how this varies for federally qualified and nonfederally qualified HMOs (Table 3); and, more specifically, on patient payment requirements and limits (Tables 4 and 5).[14]

The benefit information refers to the best-selling package of the plan. Best-selling was defined as the benefit package to which the largest proportion of the plan's enrollees subscribe.[15] Packages specifically developed for Medicare or Medicaid enrollees were excluded.[16] On average, 70.4% of the enrollment in established plans is covered by the best-selling package (81.7% for new plans). Eighty percent of established plans include 50% or more of their enrollment in the best-selling package; 21.6% of these plans include 95% or more of their enrollees in this package (Figure 1). Unless otherwise noted, the statistics refer to established plans only.

Primary Care Visits and Hospitalizations

Primary care visits were covered by all plans responding to the survey, with none limiting the number of visits. Sixty-one percent of established plans (90.9% of new plans) had some form of cost sharing. In virtually all cases, this was based on a fixed dollar copayment.

The average copayment for a primary care visit was $5.50 in 1989, with a range of $2-$10. The most common copayment was $5 (52% of plans using copayments). The other common copayments were $3 and $10, used respectively by 20% each of the plans using copayments. Less than 2% had coinsurance requirements for primary care visits; virtually none used deductibles.

All plans responding to the survey also covered hospitalizations, with under 2% limiting the number of days. No dollar limits were noted. In total, 18.5% of established plans (22.8% of new plans) required a patient payment in some form for hospitalization services, and the others did not. Again, copayments were most commonly used (12.4% of plans), followed by coinsurance (5.3%); 2.5% used deductibles.

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[14] Under the federal HMO Act, federally qualified HMOs are required to provide a number of benefits with no limits except as explicitly noted in the law. Required benefits include physician and referral services by a physician; outpatient, inpatient, and short-term rehabilitation services; physical therapy (60 days); emergency services (in and out of area); 20 outpatient mental health visits; detoxification services for the abuse of or for addiction to alcohol and drugs; diagnostic laboratory and diagnostic therapeutic radiologic services; home health services; and preventive health services (voluntary family planning services, infertility services, well-child care, periodic health evaluations, eye and ear examinations (under age 18) and immunizations). Copayments for an individual service may not exceed 50% of the cost of providing the service nor in aggregate more than 20% of the total cost of providing all basic health services. Total copayments for an individual subscriber (or member) may not exceed 200% of the annual HMO premium cost. Deductibles for basic benefits are prohibited, except as allowed under the HMO Act Amendments of 1988 as applied to the offering of "open ended options" allowing limited use of nonplan providers for physician care.

[15] Plans were asked to consider benefits covered if they were included in riders typically (i.e., at least 50% of the time) purchased with the best-selling package.

[16] This was done because these packages may differ considerably from commercial packages because of the structure of these federally sponsored programs. Plans with a best-selling benefit package which was for either Medicare or Medicaid enrollees were not asked to complete benefit items except for transplant coverage, which refers to any benefit package, and the special topics items on pharmacy benefit delivery and hospital payment methods. In total, 25 plans fell in this category, of which 18 were established plans.

The average copayment for hospital services was $116.77 in 1989, with a range of $5-$400. The most common copayment was $100, which was used by 45% of plans using copayments. The next most common was $200 (16% of such plans). Coinsurance requirements ranged from 10%-30%, averaging 19.3%. Among the few plans using deductibles, the range was $100-$1,000, with an average of $307.14.

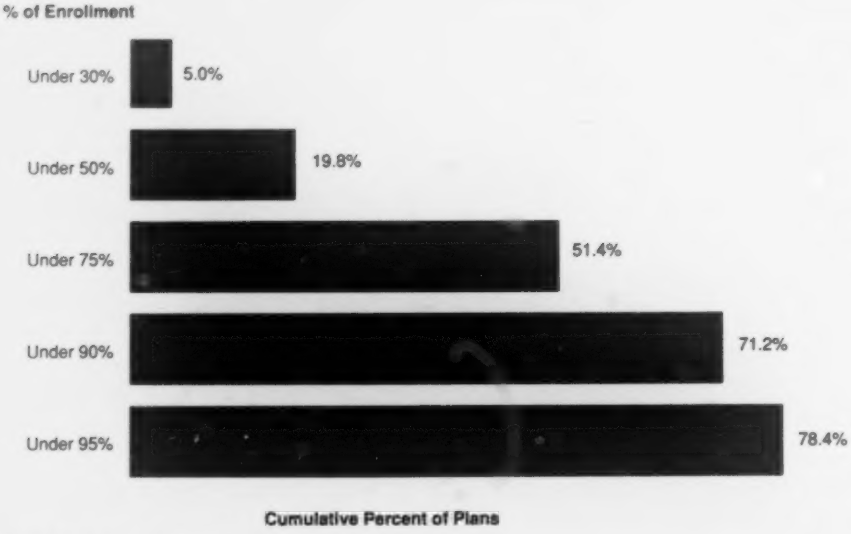
A deductible means that the patient must pay an initial specific fixed dollar amount for services received *before* premium payment is used to cover the cost; deductibles can be applied either on a calendar year basis or by admission or spell of illness. A copayment means that the patient must pay a fixed dollar amount towards the costs of care; hospital copayments could be required per day or per admission, for example. With coinsurance, patients pay a fixed percentage of the cost of services received.

To provide some indication of how cost-sharing requirements might vary by type of plan, we examined cost-sharing structures for primary care visits and hospitalizations by plan characteristics (Table 6). Regardless of the type of plan, there was a reliance on fixed dollar copayments for primary care visits. However, plan characteristics did appear to influence the decision to use copayments. The percentage of plans using copayments for primary care visits ranged from 28.0% to 79.4% depending on the type of plan. The average copayment charged by those using them varied from $3.77-$7.26 depending on the type of plan, but most differences were within a smaller range.

There was greater use of copayments in IPAs (72.4%), Mountain/Pacific plans (79.4%), plans with enrollments of 20,000-49,999 (70.7%), plans 4-7 years old (71.6%), and plans owned by commercial insurers (70.9%) or providers (69.2%). Copayments were least likely to be used by staff model plans (37.1%), plans in the East Central region (36.3%), plans 16 years of age or older (33.3%), nonprofit plans (46.4%), and plans owned by "others" (28.0%).

For hospitalization benefits, the percentage of plans having some cost-sharing requirements varied from 0 to 33% depending on the type of plan. Cost sharing was most likely to be used by plans in the South Atlantic or West Central region (33.3% and 28.6% respectively), Blue Cross and Blue Shield owned plans (31.4%), and plans with 20,000-49,999 members (26.1%). None of the plans in the New England region and none owned by "others" used cost-

Figure 1
Percentage of Enrollment in Best Selling Package, Cumulative Distribution of Plans, Plans Over Three Years Old, 1989



SOURCE: GHAA's Annual HMO Industry Survey

sharing for hospitalizations; cost-sharing also was least likely to be used by group model plans (6.1%), and Mid-Atlantic region plans (6.3%). Blue Cross and Blue Shield owned plans were most likely to use coinsurance for hospitalization benefits (13.7%).

Pharmacy Benefits

Pharmacy benefits were included in the best-selling benefit package of 95.4% of plans. A minority of plans (6.7%) applied a dollar limit to these benefits; these limits ranged from $300 to $100,000 but were $3,000 or less for all but two of the plans using dollar limits. Twenty-nine percent of plans noted other limits. The most common limit was a restriction to a 30-day supply, 100-unit dose, or similar restriction. Some plans noted differences in outpatient and inpatient coverage. Others noted the use of generics or formularies; these practices are discussed in more detail in the next section, which covers the delivery of pharmacy benefits.

Most plans (87.9%) covering pharmacy benefits required some patient payment. Eighty-two percent required a fixed dollar copayment which averaged $3.90, with a range of $1-$10. The most common copayments were $3.00 or $5.00, used by 32.5% and 33.0% respectively of plans using copayments. Seven percent of plans with copayments had copayments greater than $5.00. Nine percent of plans applied coinsurance requirements to pharmacy benefits, with an average requirement of 24.3% and range of 10% to 50%.

Pharmacy benefits were the only benefit examined where deductibles were used to any meaningful extent. Twelve percent of plans used a deductible, with these ranging from $2 to $500. The majority of deductibles used were $50 (56.7%), with a $100 deductible used next most commonly (20.0%). Seventeen percent of plans using deductibles set them at $5.00 or less; in all likelihood these are per prescription deductibles as contrasted with calendar year deductibles.

Mental Health Benefits

Virtually all plans (99.3%) covered outpatient mental health benefits and 93.3% covered inpatient mental health benefits in their best-selling package in 1989. Almost all plans also set some limit on the benefits. For outpatient mental health services, 88.5% limited the number of visits covered. Limits ranged from three to 60 visits but most typically were set at 20 visits (84.0% of plans limiting visits); two percent used a lower limit and 14% used a higher limit. Higher limits were most typically 30 visits (8.2% of plans limiting visits) or 40 visits (2.5%).

As with outpatient mental health, limits on the amount of the benefit—days in this case—were used by almost all (93.2%) plans with inpatient mental health benefits. These limits ranged from seven days to 120 days but most plans set these at 30 days (68.9% of plans using day limits). Twelve percent had lower limits and 19.7% had higher limits. The most common other limits were 45 days (8.6%), 60 days (7.4%), and 20 days (5.3%).

In providing mental health benefits, plans also noted other limits (29.9% and 21.3% respectively of plans covering outpatient and inpatient mental health benefits). For outpatient care, approximately 40 plans in total limited the dollar value of the benefit, with a $1,000 limit most common; some plans used a combined visit and dollar limit. The other commonly mentioned limit was restrictions related to crisis intervention, evaluation, and problems amenable to short-term therapy as is allowed under the federal HMO Act. For inpatient mental health benefits, there was no clear pattern to other limits used, many of which were tied to fairly specific benefit design within a plan. Approximately 12 plans noted a limit on dollar expenditures.

In sum, the typical pattern of mental health coverage in the best-selling package of HMOs was a 20-visit, 30-inpatient day benefit, although there was variation which was more likely to involve greater than lesser benefits.

In providing these mental health benefits, plans were likely to apply some cost-sharing requirements, particularly for outpatient services. Seventy-seven percent of plans covering outpatient mental health benefits required patient cost-sharing on the benefit; fewer (33%) required it for inpatient benefits. For outpatient mental health benefits, the predominant cost-sharing approach was a fixed dollar copayment (61.2% covering the benefit). On average, the copayment was $17.31, with a range of $2-$40. Although the most common copayments were $20 and $25 (29.2% and 24.0% of plans using copayments), there was considerable variation. Twenty percent had copayments of $5 or less; 20.1% had copayments between $8 and $15; and 7.1% had copayments of $30 or more. Coinsurance requirements were used by

19.9% of plans with the amount ranging from 20% to 50%; the latter was most common (69.1% of plans using coinsurance). Virtually none of the plans used a deductible.

For inpatient mental health benefits, those plans using cost sharing were equally likely to use copayments and coinsurance. Eighteen percent of plans covering inpatient mental health applied coinsurance, with a range of 10% to 50%; 20% was most common (63.0% of plans using coinsurance). Fifteen percent of plans covering the benefit had fixed dollar copayments, ranging from $100-$500; $200 was the average. Deductibles were rare (2.3% of plans covering the benefit).

Skilled Nursing Facility and Home Health Benefits

Virtually all plans covered skilled nursing facility and home health benefits in 1989, with 22.3% and 61.4% respectively covering these with no limits and no cost-sharing requirements. For the remainder, limits were more common than cost-sharing requirements. This is the first time the Annual HMO Industry Survey has requested detailed information on the structure of these benefits in HMOs.

For skilled nursing facility coverage, 69.3% of plans covering the benefit limited the number of days. These limits ranged from 14-730 days but the most common limits were 100 days (45.8% of plans using limits) or 60 days (16.8%). Twelve percent of plans using limits had limits less than 60 days; 20% had limits greater than 100 days. Limits other than on days were cited by 11.6% of plans covering skilled nursing care in their best-selling package. These most commonly were stated in terms of prior approval, medical necessity, or in relation to prior inpatient care or its substitution. Under 10% of plans required patient cost-sharing on skilled nursing facility care; 5.8% used coinsurance, 2.5% fixed dollar copayments, and virtually none, deductibles.

For home health services, only 9.3% of plans noted a specific limit on the number of visits; when used, a 40-visit limit was most common (46.2% using a limit). Nineteen percent of plans cited limits other than visits. As with skilled nursing care, these limits most typically referred to prior approval, medical necessity, or exclusion of custodial care; other common limits were stated in terms of frequency or duration of care and the specific content of care or service allowed under the benefit. Only fourteen percent of plans covering home health services required cost-sharing for these benefits. Nine percent required a fixed dollar copayment, virtually always in the $3-$10 range. Six percent had coinsurance requirements; virtually none used deductibles.

Selected Aspects of Benefit Delivery

Methods Used to Compensate Affiliated Hospitals

In providing hospital benefits, HMOs used a variety of methods to compensate their affiliated hospitals. Figure 2 summarizes the percentage of plans using various compensation methods either some or most of the time. Three compensation methods were used most commonly: charge-based payments, all-inclusive rates per day, and all-inclusive rates per day by patient type. While charge-based payments were used by the greatest percentage of plans (78.9%), all-inclusive rates per day (either in aggregate or by patient type) was the method cited as "mostly used" by the largest share of plans.

Plans were more likely to compensate hospitals on the basis of days of care or units of service than more aggregate payment methods. Twenty-five percent of plans made some use of payments on a case mix adjusted rate per stay; 19.5% paid on the basis of stays without a case mix adjustment. In total, 37.0% of plans made some use of either one or both of these stay-based payment methods. Payments on a per member basis to hospitals also were less common with only 26.5% of plans paying hospitals either a negotiated rate per member or per capita cost per member basis.[17] A few plans noted that they owned their own hospitals, which had a unique influence on their compensation structure.

Although plans used a variety of methods to pay hospitals, at least two-thirds of the plans used the most common payment mechanisms: charge-based payment, all-inclusive rates per day, or all-inclusive rates per day by patient type (Exhibit 2). Nineteen percent of plans most commonly used two or more

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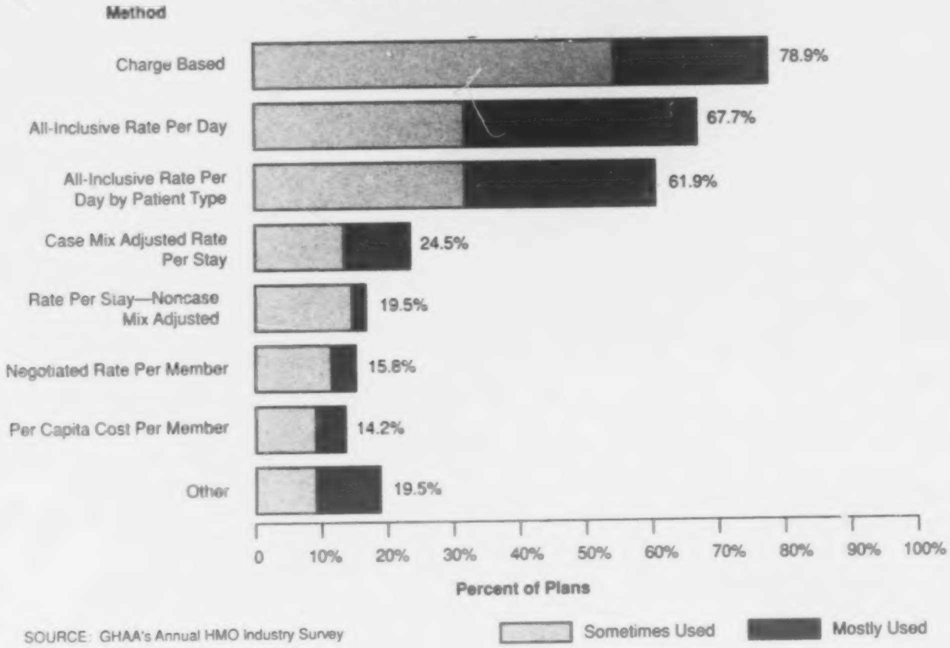
[17] Twenty percent of plans noted use of some "other" payment method. Of the 60 plans in total who described the "other" method used, the largest share (about 27 plans) noted that they paid discounted charges; additional plans may have received hospital discounts which were incorporated in the payment rates for the various methods reported. The next largest share (about 13) reported use of a DRG rate, either in general or for Medicare.

Figure 2

Percent of Plans Using Various Methods to Compensate Affiliated Hospitals, Plans Over Three Years Old, 1989



SOURCE: GHAA's Annual HMO Industry Survey

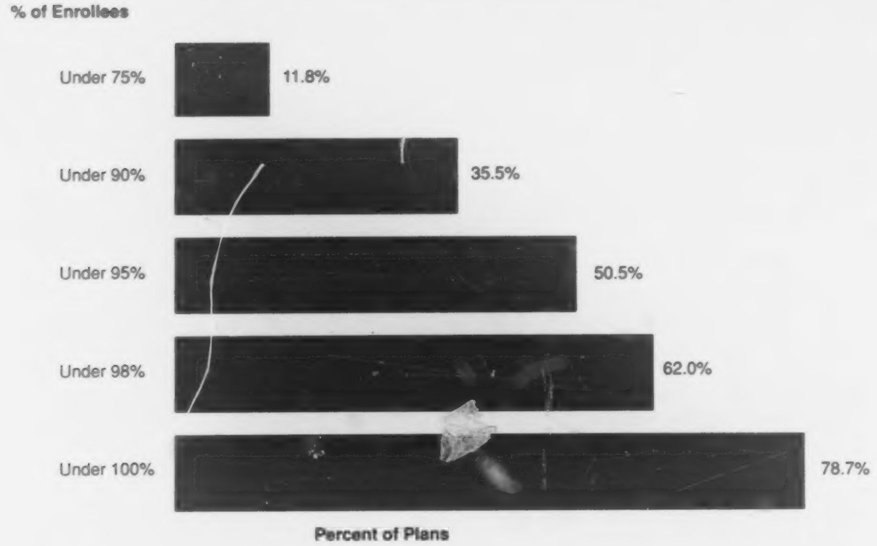
Exhibit 2
Most Commonly Used Method for Compensating Affiliated Hospitals, Plans Over Three Years Old, 1989[1]

	% of Plans
Charge Based	22.0
All-Inclusive Rate Per Day	22.0
All-Inclusive Rate Per Day by Patient Type	15.7
Case Mix Adjusted Rate Per Stay	7.1
Rate Per Stay—Noncase Mix Adjusted	0.8
Negotiated Rate Per Member	1.6
Per Capita Cost Per Member	1.2
Other Method	3.9
Two or More Methods "Mostly Used"	18.8
No Method "Mostly Used"	7.1
	100.0

1. Based on the methods plans indicate are "mostly used."

Source: GHAA's Annual HMO Industry Survey

Figure 3
Percent of Enrollees Covered for Pharmacy Benefits, Cumulative Percent of Plans, Plans Over Three Years Old, 1989



SOURCE: GHAA's Annual HMO Industry Survey

methods, while seven percent had no method used most commonly.

Finally, plans were split in terms of whether they compensated hospitals at the same rate for individuals covered by Medicare as by other payors. For those covering enrollees with Medicare as their primary coverage, 56.7% paid the same rate for Medicare enrollees as others and 43.4% did not. Further research in this area could be interesting to identify better the nature of any differences and how these could be influenced by such factors as patient severity of illness, the federal Medicare DRG system, and risk sharing arrangements with hospitals.

Delivery of Pharmacy Benefits by HMOs

Because HMOs integrate financing and delivery of care, they have had more experience in handling pharmacy benefits than traditional insurers and more incentive to manage delivery effectively. As pharmacy costs have risen, there has been growing interest in how HMOs handle pharmacy benefits. To improve information in this area, this year's survey included a number of questions on pharmacy benefits delivery as a special topic.[18]

Virtually all established plans covered prescribed drugs in at least one of their benefit packages in 1989 (98.3%). On average, 87.5% of a plan's enrollees were covered. Ninety percent of enrollees were covered in all but 35.5% of plans; 98% or more of all enrollees were covered in all but 38% of plans (Figure 3). All but 34.5% of plans offered more than one pharmacy benefit package. Twenty-one percent offered two packages, 17.4% three, and 27.0% four or more. Prior research has indicated that pharmacy benefits were most likely offered as riders rather than included as part of the basic benefit package.[19] In providing pharmacy benefits, 12.8% of plans covered over the counter drugs in at least one of their pharmacy benefit packages; 83.7% covered birth control pills or devices.

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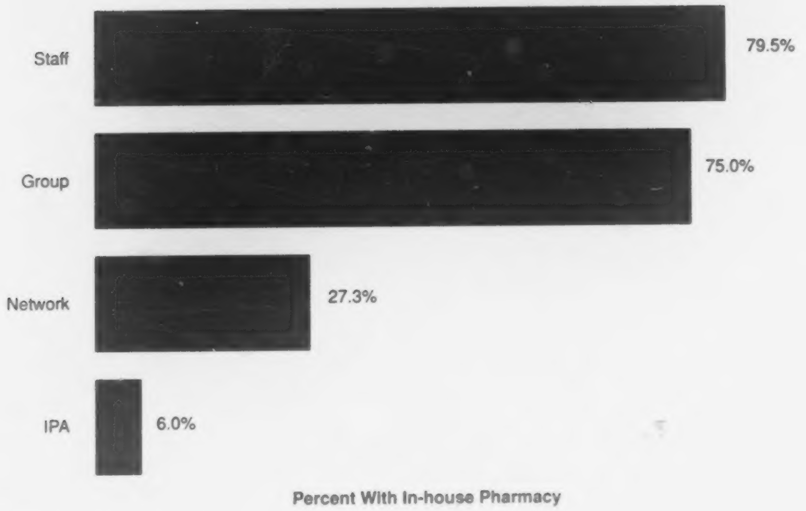
[18] For readers interested in pharmacy benefits within HMOs, see also Marsha Gold et al., "Pharmacy Benefits in Health Maintenance Organizations" *Health Affairs* 8: 182-190, Fall 1989. This article is based on results from a survey of a random sample of GHAA member plans in mid 1989.

[19] Gold et al., ibid.

Figure 4
Use of an In-house Pharmacy by Plans of Different Model Types, Plans Over Three Years Old, 1989



SOURCE: GHAA's Annual HMO Industry Survey

The two major methods used by HMOs in delivering pharmacy benefits are in-house pharmacies and contracted pharmacies, with the latter administered either directly or indirectly through a third-party administrator. Contract arrangements also are commonly used as an adjunct to in-house pharmacies, particularly for smaller plans.[20] In-house pharmacies were more likely in plans organized around large group practices (Figure 4). Seventy-seven percent of group and staff model plans used in-house pharmacies while only 9.8% of network or IPA model plans did. Although only 31.4% of plans used an in-house pharmacy in delivering pharmacy benefits, a greater percentage of enrollees were served by these pharmacies because plans with in-house pharmacies tend to be larger than others. There were 12.6 million enrollees in the plans which used in-house pharmacies; this represents over half (53.2%) of the total enrollment of the responding established plans.

There has been considerable interest in the features HMOs use in structuring pharmacy benefits. HMO practices with regard to generic drugs, formularies, and therapeutic substitution are summarized in Exhibit 3. Because the extent of these practices has historically been influenced by the inclusion of an in-house pharmacy, separate profiles are provided for group and staff model plans, versus network and IPA models.

Most HMOs included some use of generic drugs in their benefit structure although the form this took varied by plan. The two most common approaches for use of generic drugs were to limit coverage to generics unless a physician specially requested otherwise or to require greater patient payment for brand names than for generics.[21] Network and IPA model plans were twice as likely to use differential cost sharing as others. Twenty-eight percent of plans indicated that coverage did not vary for generic and brand name drugs; this approach was most common for group and staff model plans.

Formularies were used by half of the plans. Formularies were three times as common in group and staff model plans as others. Only 19.5% of group and staff model plans but 62.6% of network

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[20] Gold et al., ibid. This article also describes the variety of methods used in delivering pharmacy benefits and the percentage of prescriptions filled on average using each of these methods by plans of different model types. Note that the Annual HMO Industry Survey responses reported on in this edition of the *HMO Industry Profile* also indicate that 16.2% of plans made some use of mail-order pharmacies in 1989, 8.5% made some use of indemnity arrangements, and 39.2% used some form of card system in administering the pharmacy benefit dispensing arrangements. The inclusion of some form of mail order arrangement increased by plan size, with 32.8% of plans with 100,000 enrollees or more making some use of this approach. Prior research has indicated, however, that only a small percentage of prescriptions are filled using this type of arrangement.

[21] In addition, 5.6% of plans said they used "other" generic arrangements. In some of these cases, plans noted that they required higher charges for brand names regardless of whether a physician recommended the drug.

Exhibit 3
Treatment of Various Cost Containment Features in Delivering Pharmacy Benefits by Model Type, Plans Over Three Years Old, 1989

Type of Measure	All Plans	Group and Staff Models	Network IPA Models
GENERIC DRUGS			
1. Coverage limited to generics when available	5.4%	7.9%	4.3%
2. Above, unless physician specifically requests a brand name	29.3%	28.1%	29.8%
3. Generics and brand names covered but patient pays more for brand names unless physician specifically requests it	30.3%	19.1%	35.1%
4. Same coverage for generics and brand names	28.3%	39.3%	23.6%
5. Other	6.7%	5.6%	7.2%
(Number of Plans)	(297)	(89)	(208)
FORMULARIES			
1. Coverage restricted to formulary	10.9%	12.6%	10.2%
2. Coverage restricted to formulary but exceptions allowed	16.7%	29.9%	11.2%
3. A formulary exists, but coverage is not restricted to it	20.1%	35.6%	13.6%
4. No formulary	49.8%	19.5%	62.6%
5. Other	2.4%	2.3%	2.4%
(Number of Plans)	(293)	(87)	(206)
THERAPEUTIC SUBSTITUTION BY PHARMACIST			
1. Allowed, at pharmacist's discretion within established parameters	16.4%	23.0%	13.5%
2. Allowed by pharmacist upon consultation with physician within established parameters	25.4%	29.9%	23.5%
3. Not allowed	54.4%	43.7%	59.0%
4. Other	3.8%	3.4%	4.0%
(Number of plans)	(287)	(87)	(200)

Source: GHAA's Annual HMO Industry Survey

and IPA plans indicated that they made no use of a formulary. Restrictive formularies—where coverage is restricted to pharmaceuticals on the formulary—were more commonly used than non-restrictive formularies although both were common. The majority of plans restricting coverage to drugs on the formulary allowed for exception. Formularies generally were established by physicians, pharmacists, and [illegible]etimes nurses. This generally was accomplished through a Pharmacy and Therapeutics (P&T) Committee. A few plans noted that state Medicaid agency formularies were used.

Therapeutic substitution by a pharmacist was allowed by slightly less than half of the plans; 43.7% of group and staff model plans did not allow therapeutic substitution while 59.0% of networks and IPAs did not allow it. Therapeutic substitution most commonly was at the pharmacist's discretion within established parameters or upon consultation with the physician. Based on plans' open ended responses, it appears that these practices are closely related to formulary practices, with allowed interchanges developed by the P&T Committee or between physicians and the pharmacist. These practices also are regulated by state law. In addition, some of the plans using therapeutic substitution limited it to a small number of interchanges.

Coverage of Transplants

There has been considerable interest in how HMOs handle new technology. Transplant coverage has therefore been a topic which has continued to generate inquiries. The GHAA Annual HMO Industry Survey has tracked transplant coverage within HMOs since 1985. This is addressed in the survey by asking plans to indicate which of a list of transplants were covered in at least one of the basic benefit packages of the plan, as a rider, or on a case-by-case basis.[22]

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[22] Based on the U.S. Department of Health and Human Services' interpretation of the requirements under the federal HMO Act, federally qualified HMOs in 1989, as in 1985-1988, were required to provide coverage for four kinds of transplants: kidney, cornea, bone marrow, and liver for children with biliary atresia or other congenital conditions.

Figure 5 profiles the results for established plans in 1989 (see also Table 7). Almost all plans covered kidney transplants (98.3%), cornea transplants (96.9%), liver transplants for children with biliary atresia or a related condition (93.9%), or bone marrow transplants (91.8%). Usually, transplant coverage was provided under at least one of the basic benefit packages of the plan rather than solely as a rider or on a case-by-case basis; this was somewhat less likely for bone marrow transplants than others.

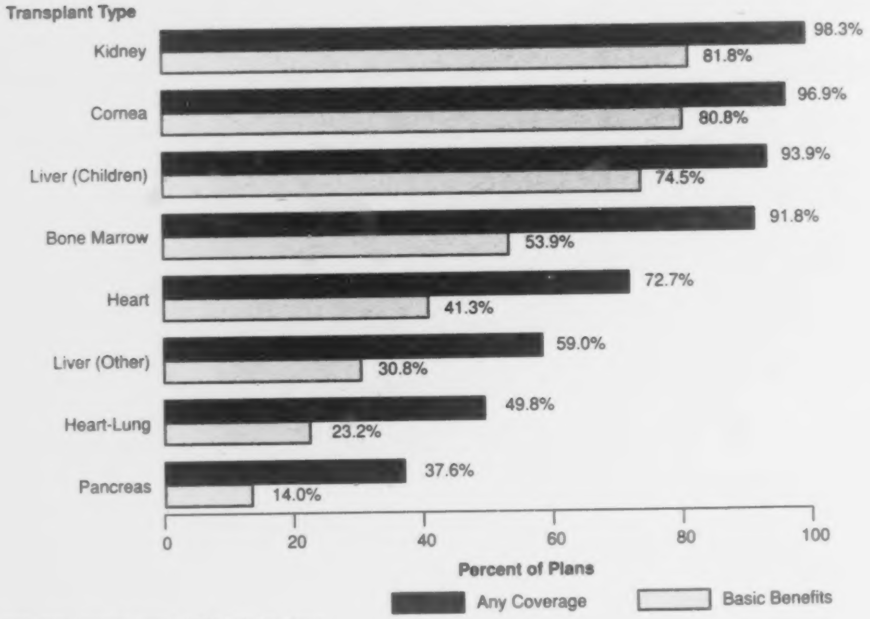
The plans varied in their handling of other kinds of transplants although all but pancreas transplants were covered by half the plans or more. Seventy-three percent of plans covered heart transplants, 59.0% covered liver transplants for conditions other than those indicated before, 49.8% covered heart-lung transplants, and 37.6% covered pancreas transplants.

Patterns of transplant coverage were generally similar for federally qualified and nonfederally qualified plans (Table 8). Both federally qualified and nonfederally qualified plans almost always covered the four kinds of transplants that have been interpreted as required under the federal HMO Act, but nonfederally qualified plans were somewhat less likely to cover these transplants. The most substantial differences between federally qualified and nonqualified plans were for bone marrow transplants (96.2% versus 85.7%) and for liver transplants for children with biliary atresia or a related condition (98.4% versus 85.6%).

For other kinds of transplants, a similar percentage of plans covered heart or heart-lung transplants, regardless of federal qualification status. Nonfederally qualified plans were more likely to cover liver transplants for other conditions than those noted above (63.1% versus 56.6% for federally qualified plans). They also were more likely to cover pancreas transplants (45.7% versus 33.1%).

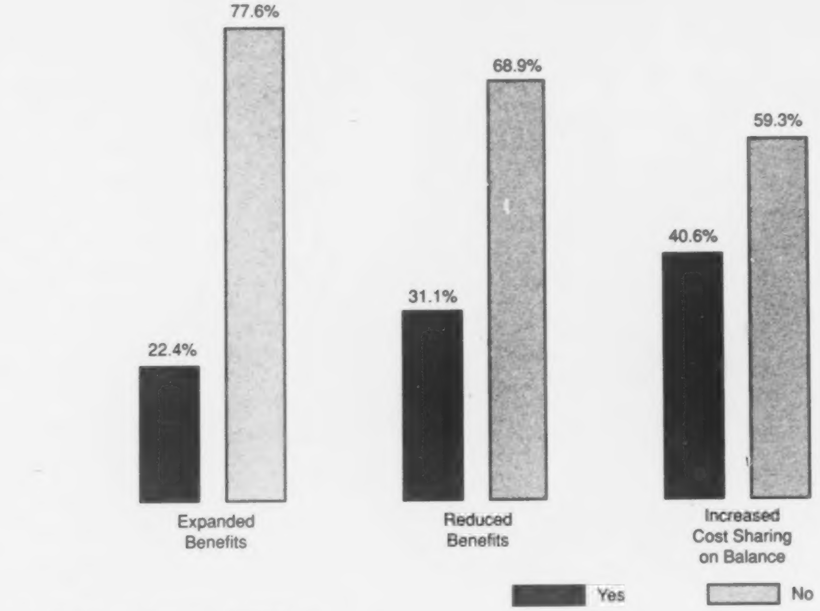
Figure 5

Transplant Coverage by Type, Plans Over Three Years Old, 1989



SOURCE: GHAA's Annual HMO Industry Survey

Figure 6
Change in Benefits and Cost Sharing in Best Selling Benefit Package, Plans Over Three Years Old, 1988–1989



Note: Based on Plan Responses to 1989 Survey
SOURCE: GHAA's Annual HMO Industry Survey

Trends in Benefit Package Design

Detailed descriptions of the range of benefits covered in HMOs' best-selling benefit packages have been provided in previous editions of the *HMO Industry Profile*. These benefits are summarized in Exhibit 4, which profiles the best selling packages in established HMOs as of September 30, 1988. To obtain some assessment of how these benefits may have changed in 1989, this year's annual survey asked plans to compare their best selling packages between 1988 and 1989, both in terms of benefits and cost sharing requirements. This section reviews both these results and statistics available across the years to assess trends in benefit package design.

It does not appear that the basic structure of HMO benefit packages changed between 1988 and 1989. In addition, over half the plans said cost sharing remained the same on balance in 1989 as in 1988 (2.1% noted a net reduction). However, cost sharing for HMO benefits in 1989 did increase on average because more plans increased cost sharing than reduced it—a pattern similar to that identified last year. As shown in Figure 6, 22.4% of plans indicated that they had expanded benefits in 1989, 31.1% that they had reduced benefits, and 40.6% that they had increased cost sharing on balance.

For plans expanding benefits, expansion in the mental health and substance abuse areas were the most commonly cited change; these were noted by about a quarter of all plans indicating benefit expansions. Vision benefits, transplant coverage, and pharmacy benefits also were cited by a number of plans. In contrast to benefit expansions which tended to focus on additions of specific benefits, those plans citing a reduction in benefits most typically indicated cost sharing increases rather than elimination of benefits or imposition of limits. These changes generally were in the form of adding copayments or increasing existing copayments. If specific benefit reductions were noted, these were most likely to be in the form of tighter limits on skilled nursing care or other rehabilitative services or equipment.

As noted previously, 40.6% of plans responding to this year's survey indicated that cost sharing had increased in their plan on balance in 1989. The

Exhibit 4
Overview of Coverage of Selected Benefits In Health Maintenance Organizations Plans Over Three Years Old, 1988[1]

Virtually always covered (99 percent or more of plans)	
Primary care visits (100 percent)[2]	Typically no limits; half charge copayments
Outpatient laboratory (100 percent)[2]	Typically no limits or copayments (13 percent have copayments)
Outpatient x-ray (100 percent)[2]	Typically no limits or copayments (14 percent have copayments)
Prenatal care (100 percent)[2]	Typically no limits; one-third charge copayments
Emergency care (100 percent)[2]	Typically no limits; two-thirds charge copayments
Hospitalization (99 percent)[2]	Typically no limits or copayments (14 percent have copayments)
Home health care (100 percent)[2]	Two-thirds have no limits or copayments; the rest vary
Outpatient mental health care (100 percent)[2]	Typically with limits and copayments (21 percent have limits only)
Physical therapy (100 percent)[2]	No clear pattern on benefit structures (61 percent have limits)
Almost always covered (90–98 percent of plans)	
Allergy treatment (98 percent)	Typically no limits or copayments, or copayments only
Drug/alcohol detoxification (98 percent)[2]	No clear pattern; 56 percent have limits and one-third copayments
Skilled nursing care (97 percent)	Over half of plans have limits; copayments are rarer
Inhalation therapy (96 percent)[2]	Half have no limits or copayments; the rest vary but copayments are common
Pharmacy (94 percent)	Usually with copayments; sometimes with limits
Hearing tests (94 percent)	Half have no limits or copayments; copayments more common than limits
Speech therapy (92 percent)[2]	Usually with limits; sometimes with copayments
Vision tests (91 percent)[2]	No clear pattern on benefit structure; copayments more common than limits
Inpatient mental health care (91 percent)	Almost always with limits; sometimes with copayments
Usually covered (65–89 percent of plans)	
Dental/accidental injury (86 percent)	Two-fifths cover without limits or copayments; others vary
Occupational therapy (85 percent)[2]	No clear pattern on benefit structure; over half have limits
Drug/alcohol rehabilitation (81 percent)	Usually with limits, with or without copayments
Hospice (80 percent)	Typically with no limits or copayments, or just limits
External prosthetics (77 percent)	No clear pattern on benefit structure
Podiatry (78 percent)	Half covering have no limits or copayments; copayments common in rest
Durable medical equipment (76 percent)	No clear pattern on benefit structure
Sometimes covered (25–64 percent of plans)	
Chiropractic services (45 percent)	Half cover with no limits or copayments; the rest vary
Temporomandibular joint treatment (43 percent)	No clear pattern on benefit structure
Least frequently covered (0–24 percent of plans)	
Preventive dental care (23 percent)	No clear pattern on benefit structure
Eyeglasses (18 percent)	Typically with limits, with or without copayments
In vitro fertilization (17 percent)	No clear pattern or benefit structure
Restorative dental care (13 percent)	No clear pattern on benefit structure
Hearing aids (12 percent)	Typically with limits
Cosmetic surgery (7 percent)	Typically with limits; copayments are rarer

1. Based on best-selling benefit package (excluding Medicare or Medicaid) including riders typically purchased with package. Descriptions of benefits are based on responses indicating whether or not the amount of service or dollar expenditure is restricted, and whether or not any patient cost sharing is required. Statistics are for September 30, 1988.
2. Required coverage for federally qualified plans under the HMO Act. Vision and hearing tests are only required for children through age seventeen.

Source: GHAA's Annual HMO Industry Survey, 1988. This table is excerpted with permission from the winter 1989 volume of *Health Affairs* (Gold and Hodges "Health Maintenance Organizations in 1988" pp.125–138).

percentage increasing cost sharing in 1989 was similar to that reported by plans in 1988 (43.6%). There were 182 established plans which responded to this item in both years. Of these plans, 23% increased cost sharing in both 1988 and 1989, 32% in one year but not the other, and 44% in neither year.

Exhibit 5 provides additional information about cost sharing trends. The exhibit includes statistics on cost sharing from 1986-1989, using five specific benefits for which detailed information has been collected in each year. Two forms of analysis are presented: cross-sectional survey results based on established plans responding to each year's survey; and paired comparisons, based on plans which responded in both 1988 and 1989, and in both 1986 and 1988. While the latter comparisons are less generalizable, they are useful in assessing trends because they compare the same plans over time.

Exhibit 5
Type and Extent of Patient Cost Sharing in Selling Benefit Package, Selected Benefits and Measures, Cross-Sectional and Paired Comparisons Plans Over Three Years Old, 1986–1989

A. Cross-Sectional Comparisons, 1986–1989[1]

Type of Benefit	Copayments						Other					
	Percent Using			Mean			Percent with Deductible			Percent with Coinsurance		
	1986	1988	1989	1986	1988	1989	1986	1988	1989	1986	1988	1989
Primary Care Visits	37.6	47.8	60.1	$ 4.19	$ 4.33	$ 5.50	0.8	0.0	0.7	0.8	1.6	1.4
Hospitalization	4.8	7.5	12.4	$166.67	$128.85	$116.77	3.2	1.6	2.5	4.8	5.3	5.3
Pharmacy	78.1	75.4	82.2	$ 2.78	$ 3.29	$ 3.90	10.5	15.0	11.5	8.6	9.8	8.6
Outpatient Mental Health	45.6	60.1	61.2	$ 16.84	$ 15.80	$ 17.31	0.0	0.0	0.7	21.6	21.4	19.9
Inpatient Mental Health	8.5	12.6	15.3	$ 95.00	$ 60.00	$200.00	2.6	0.0	2.3	12.0	19.3	17.9

B. Paired Comparisons, 1986–1988, 1988–1989[2]

Comparison Measure	Benefit Type				
	Primary Care Visits	Hospitalization	Pharmacy	Outpatient Mental Health	Inpatient Mental Health
Plans Responding in Both '86 & '88 Only					
% Copay '86	36.9	4.8	67.9	51.2	9.8
% Copay '88	45.2	4.8	65.4	59.8	9.8
(Number of Plans)	(84)	(84)	(81)	(83)	(82)
Mean Copay '86	3.86	*	3.21	8.44	87.79
Mean Copay '88	4.21	*	3.36	8.18	78.90
(Number of Plans)	(29)	(2)	(52)	(37)	(4)
% Coinsurance '86	1.2	6.0	3.7	18.1	11.0
% Coinsurance '88	2.4	9.5	11.1	21.7	18.3
(Number of Plans)	(84)	(84)	(81)	(83)	(82)
% Deductible '86	0.0	2.4	6.2	0.0	2.4
% Deductible '88	0.0	2.4	12.3	0.0	0.0
(Number of Plans)	(84)	(84)	(81)	(83)	(82)
Plans Responding in Both '88 & '89 Only					
% Copay '88	50.8	8.8	73.2	61.0	12.9
% Copay '89	55.8	11.0	74.3	59.9	11.9
(Number of Plans)	(181)	(181)	(179)	(177)	(176)
Mean Copay '88	4.25	126.11	3.21	16.26	59.24
Mean Copay '89	4.64	103.89	3.62	16.57	59.23
(Number of Plans)	(87)	(9)	(119)	(89)	(13)
% Coinsurance '88	1.7	4.4	8.9	20.8	13.6
% Coinsurance '89	1.1	6.1	8.3	20.2	16.9
(Number of Plans)	(181)	(181)	(180)	(178)	(177)
% Deductible '88	0.0	1.7	12.8	0.0	0.0
% Deductible '89	0.6	2.2	13.3	1.1	1.1
(Number of Plans)	(181)	(181)	(180)	(179)	(178)

1. Results for all plans over three years old responding each year. Percentages are based only on plans covering the benefit.
2. Based only on plans responding in both the indicated years. Plan age defined by former of two years.
* Data not shown where cell size is less than 4 plans.
Source: GHAA's Annual Industry Surveys

Exhibit 6
Extent to Which Plans Cover Various Transplants
Plans Over Three Years Old, 1986–1989[1]

	Cross-Sectional Survey Results			Plans Responding in 1988 & 1989 Only[2]		
Type of Transplant	**1986**	**1988**	**1989**	**% 1988**		**% 1989**
Kidney	96.7	97.0	98.3	96.9		99.0
(Number of Plans)	(124)	(199)	(296)		(195)	
Liver (children)	87.1	94.5	93.9	93.4		94.4
(Number of Plans)	(124)	(200)	(294)		(196)	
Liver (other)	55.6	62.7	59.0	63.3		61.2
(Number of Plans)	(124)	(201)	(295)		(196)	
Heart	69.3	72.0	72.7	73.7		73.2
(Number of Plans)	(124)	(200)	(293)		(194)	
Heart-Lung	53.2	51.8	49.8	53.4		49.7
(Number of Plans)	(124)	(199)	(293)		(193)	
Pancreas	41.2	40.0	37.6	39.8		36.1
(Number of Plans)	(124)	(195)	(292)		(191)	
Cornea	93.6	94.4	96.9	94.7		98.4
(Number of Plans)	(124)	(195)	(292)		(189)	
Bone Marrow	91.1	87.9	91.8	89.6		94.3
(Number of Plans)	(124)	(199)	(293)		(193)	

1. Includes plans which cover this in at least one benefit package, under a rider or on a case-by-case basis.
2. Includes plans over three years old in 1989.
Source: GHAA's Annual HMO Industry Surveys

The analysis presented in Exhibit 5 indicates that changes in patterns of cost sharing vary by type of benefit. Of the five benefits, primary care visits were the benefit area where increases in cost sharing were most obvious. Both the percentage of plans using cost sharing and the mean amount charged increased across the years; plans continued to use fixed dollar copayments. The paired comparisons suggest that the extent of change in this area may be somewhat overstated by the cross-sectional survey data. This is because response rates improved over time resulting in some differences in the included plans.

Average copayments also increased for pharmacy services; the increased use of coinsurance and deductibles which occurred between 1986 and 1988 does not appear to have carried over into 1989. For hospitalizations although it appears there may have been some increases in the percentage of plans using cost sharing, this practice was still limited in HMOs in 1989. Clear trends were not apparent for mental health benefits; there may have been some limited growth in use of coinsurance for inpatient mental health benefits. The increase in cost sharing for outpatient mental health benefits between 1986 and 1988 appears not to have carried over into 1989.

Exhibit 6 provides similar information for assessing trends in transplant coverage. Both the cross-sectional and paired comparison results indicate that there has been little change in the percentage of plans covering various transplants between 1986 and 1989. The decision to provide a transplant is a complex one. The inability to detect trends based on a single question asked regarding transplants could be because this question is not sufficiently specific to identify the medical criteria and other decision making vehicles used by plans in considering transplant decisions.

The trends noted above are best viewed in context. In recent years, there has been considerable concern among major purchasers over the cost of health benefits. A recent *Business and Health* survey of corporate leaders found that 92% were very concerned with rising health insurance premium costs.[23]

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[23] "The 1990 National Executive Poll on Health Care Costs and Benefits" *Business and Health* pp. 25-38, April 1990.

One of the more common responses to this issue has been to increase cost sharing for health benefits. Cost shifting from employers to employees has been most apparent in indemnity offerings. HMOs, as reported in last year's Annual HMO Industry Survey, also perceived considerable pressure from employers to increase cost sharing.[24] At the same time, cost sharing and benefit design also have been an increasing source of labor-management strife. For example, a recent analysis by the Service Employees International Union indicated that health benefits were a major issue in work stoppages involving 78% of all striking workers in 1989, up from 18% in 1986.[25]

Within this context, it therefore is relevant to note the consistency of the HMO benefit package between 1986 and 1989. HMOs have continued to provide first dollar coverage despite some growth in cost sharing. The HMO benefit package also has remained distinct from indemnity packages which tend to be structured heavily around deductibles and coinsurance requirements despite a tendency in recent years to impose some limit on the maximum out-of-pocket subscriber liability.[26]

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[24] See GHAA *HMO Industry Profile (1989 edition)*, volume 1 "Benefits, Premiums, and Market Structure in 1989," Group Health Association of America, Inc., Washington, D.C., June 1989.

[25] Service Employees International Union *Labor and Management: On a Collison Course Over Health Care* (Washington, D.C.: Department of Public Policy, Service Employees International Union, AFL-CIO, CLC, February 1990).

[26] For further analysis of indemnity benefits, see for example the following: Bureau of Labor Statistics *Employee Benefits in Medium and Large Firms, 1988* Bulletin 2336, Government Printing Office, Washington, D.C., August 1989; Stephen DiCarlo and Thomas Musco *Research Bulletin: A Profile of Employer Sponsored Health Insurance in the United States* Health Insurance Association of America, Washington, D.C.; and Foster Higgins and Company, "Tables of Survey Responses" *Health Care Benefits Survey, 1988* New York, 1989.

V. PREMIUM RATES AND RATE SETTING

This section provides information on the premium rates charged by plans in 1989, the amount of employer contribution, and the change in premiums from 1988 to 1989. The section also presents findings on the methods used by plans to establish premium rates. This includes information on the extent to which plans were using the authority for adjusted community rating provided by the 1988 amendments to the federal HMO Act. It also provides information on the data capabilities of plans as these relate to information required for various forms of rating.

In responding to questions on premium rates and employer contributions, plans were asked to provide information for the largest single account excluding Medicare and Medicaid. This was a state or local governmental account for 42.4% of established plans; a private employer or union account for 35.4%; a federal account for 18.2%; and some other account for 4.0%.[27]

Information was requested as of January of the specified year. The reader should keep in mind that anniversary dates of accounts vary; hence, premiums as of January may or may not reflect changes made that year in the premiums or employer contributions. Because January is the month in which the largest share of accounts renew however, most increases reflect 1989 practices. As shown in Figure 7, 61.9% of established plans renewed their largest single account in January, with July the only other month common (17.5%).

Unless otherwise specified, the figures cited are for established plans.

Premium Rates and Employer Contributions

In 1989, the mean monthly premium for a single contract in the largest account was $102.66; it was $264.08 for a family contract (Exhibit 7; premiums were somewhat lower in new plans which could be influenced by their locations).[28] In established plans, the average employer contribution was 88.0% for a single contract and 77.0% for family coverage (see Tables 9 and 10 for statistics on premiums and employer contributions for each type of contract by plan characteristics and plan age). This means that, on average, the employee paid $13.05 per month for single coverage and $60.61 per month for family coverage in 1989.

Exhibit 7
Employer Contributions in Relation to Monthly HMO Premiums, by Type of Contract, Plans Over Three Years Old, 1989

Type of Contract	Premium	Employer Contribution	
		Amount	Percent
Single	$102.66	$ 89.61	88.0
Family	264.08	203.47	77.0
Couple	212.85	169.22	78.20
Parent & Child	194.92	149.92	76.34

Source: GHAA's HMO Industry Survey

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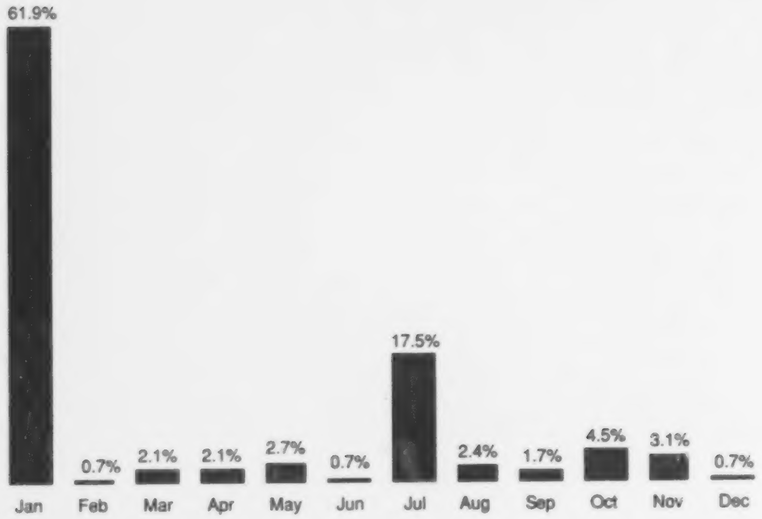
[27] This year's question was identical to that asked in 1988. Prior to that there were some differences in the types of accounts specified for premium items. For 1985, the survey asked for largest single account excluding the Federal Employees Health Benefits Program. For 1986, the survey asked plans to exclude both these types of accounts and accounts for state and local government employees.

[28] These premium rates differ slightly from those based on all responding established plans because the rates in Exhibit 7 exclude plans not providing information on employer contributions. The most complete estimate of premium rates was $102.55 for single contracts, and $266.44 for family contracts in 1989.

Figure 7
Anniversary Month of Largest Single Account, Plans Over Three Years Old, 1989



Note: Excludes Medicare and Medicaid Accounts
SOURCE: GHAA's Annual HMO Industry Survey

The percent of premium covered by the employer contribution varied considerably across plans, which is consistent with results from prior years (Table 11). In 39.9% of plans, the employer paid the entire premium for single coverage; 26.1% paid the entire premium for family coverage.

The percent of premium covered by the employer contribution also varied considerably by the source of contract (Figure 8; see also Table 11). Compared to private employers, the Federal Employees Health Benefits Program contributed a substantially smaller amount to the premiums of both single and family contracts. State and local governments paid less for family coverage although not for single coverage.

Although the average percentage of premium reflected by the employer contribution did not change greatly from 1988 to 1989, a smaller share of plans provided data indicating that their employer contribution for family contracts covered the entire premium (34.1% versus 26.1% with declines both for private employers and state and local government accounts). Such declines would be consistent with the plan perceptions reported last year; 44% of plans in 1988 perceived moderate or heavy pressure by employers for reduced coverage of dependents).

Premium Increases, 1988-1989

From January 1988 to January 1989, HMO premium rates in established plans increased 17.4% for single contracts, and 18.5% for family contracts; for new plans, the equivalent increases were 20.8% and 19.8% respectively. There was little difference by type of contract (Figure 9; see also Table 12). In addition, most plans (72%) indicated that increases were typical of those for other accounts; of the remainder, 11% said rates of increases were higher in the largest account and 16% said they were lower. The percentage increases reported here are slightly higher than those reported last year based on plans which had established their 1989 rates by the time of last year's survey. This difference appears mostly attributable to the differences in plans responding in each year.[29]

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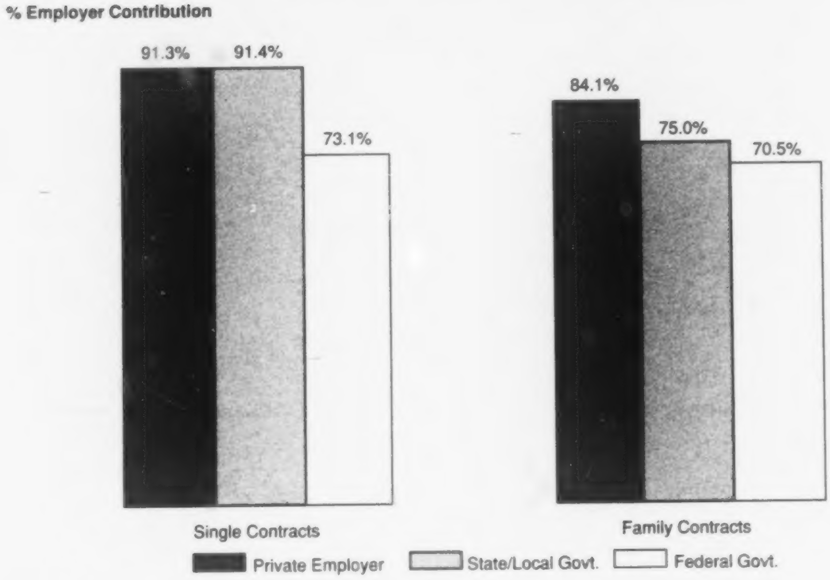
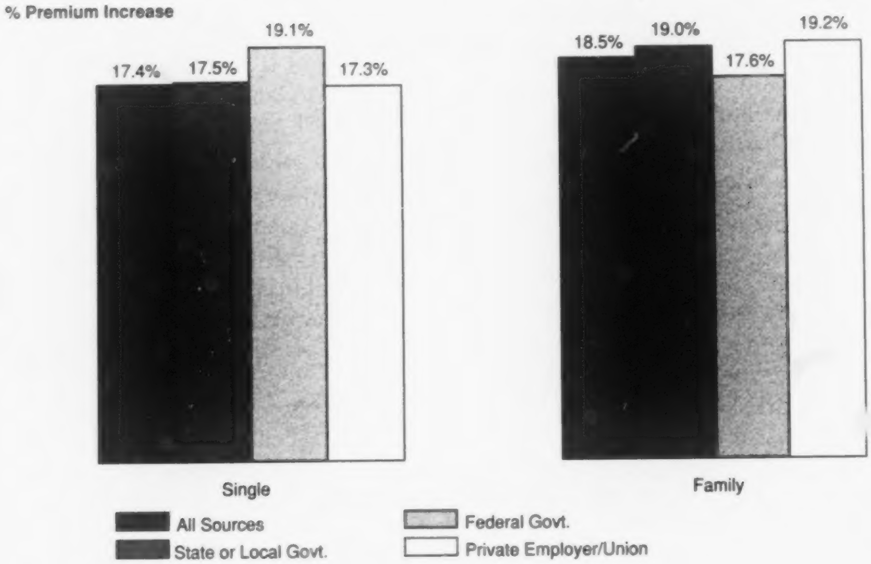
[29] The figures reported in last year's edition of the *HMO Industry Profile* were 16.8% and 17.0% respectively. To assess better both this issue and the issue of how closely reporting corresponded between reports of established increases for 1989 in late 1988 and those reported in 1989 itself, we compared results for plans providing both sets of data. There were 98 established plans which responded in both years, indicated in 1988 that their 1989 rates had been established by the time of the survey, and reported on these 1989 rates both in 1988 and 1989. For single premiums, the averages reported in 1988 were virtually identical to those of 1989 (16.77% versus 16.79%). For family premiums, the results were close but not identical with slightly lower increases for 1989 reported in 1988 than 1989 (15.76% versus 16.80%).

Figure 8
Percent of Employer Contribution to HMO Premium By Source and Type of Contract, All Plans, 1989



SOURCE: GHAA's Annual HMO Industry Survey

Figure 9
Average HMO Premium Increase, 1988–1989, by Contract Type and Source, Plans Over Three Years Old



SOURCE: GHAA's Annual HMO Industry Survey

Average premium increases for 1989 varied by type of plan. Premium increases were lower for the largest plans; on average, increases for plans with 100,000 enrollees or more were about 14% in 1989. Because these plans included a large share of HMO enrollment, this means that the average increase faced by an employer or enrollee was less than would be predicted based on the average premium increases across plans.

In addition to plan size, premium increases also varied by other plan characteristics although differences tended not to be large. Increases were least in the oldest plans and not-for-profit plans; and greatest in plans located in the Mid-Atlantic and West Central states, in plans 20,000-49,999 members in size and 4-7 years old, in IPAs (especially for families), and in plans owned by insurers and "others." These patterns could reflect the fiscal stress associated with start-up operations in the younger HMOs and the effort to more adequately set premiums for the future—as well as take other measures—to improve financial performance. This conclusion is consistent with the reasons HMOs have given for improvements in financial position in both 1988 and 1989.[30]

The average premium increases reported for 1989 are higher than those reported for 1988 when rate increases averaged 11%-12% on average and the same is true for prior years; for example, premium increases averaged 2%-3% in 1986. HMO premium increases also exceeded the rate of inflation in the medical care component of the Consumer Price Index, which averaged 7.1% for the twelve months ending March 1989. However, HMO premium increases in 1989 were below those reported for indemnity plans.[31]

Methods Used to Set HMO Premium Rates and Trends

There have been changes in rating methods used by HMOs over the past several years. Although community rating continues to be a characteristic of HMOs, the types of methods used have changed over time. Results for 1989 show that plans have started to use the new authority of the federal HMO Act Amendments of 1988 for adjusted community rating, which allows plans to set rates prospectively based on group experience. These changes follow the shifts from 1986 to 1988 towards greater use of community rating by class (as contrasted with standard community rating). The percentage of plans using experience rating also grew over this period although these practices have remained in fairly limited use within HMOs.

These conclusions are discussed in the following two subsections which profile rating methods used by HMOs in 1989 and trends between 1986 and 1989. Readers should note that rating questions covering 1989 were modified from prior years to reflect the 1988 Amendments to the federal HMO Act. Although the same areas were questioned as in prior years, adjusted community rating was added to the existing three categories which were standard community rating, community rating by class, and experience rating. The latter category was defined to exclude any methods based on group experience using an adjusted community rating approach. As a result of these changes, some of the analysis has been modified from prior years.

Patterns of Rating in 1989

Figure 10 summarizes the extent to which established plans made any use of each of the rating methods for their private employer groups (see also Table 14). Fifty-eight percent of plans in 1989 made some use of standard community rating in which one plan-wide rate is set for all enrollees of the same contract type (e.g., single, family), adjusted for any differences in benefits covered. Under community rating by class, several plan-wide rates are developed based on the demographic class of the enrollee (e.g., by age and sex); 55.6% of plans made some use of this approach in 1989.

Both standard and community rating by class represent plan-wide rating setting methods; there is no explicit adjustment for the expected experience of any particular employer group even though community rating by class could result in different rates for employers based on their demographic profiles. Before the 1988 Amendments, these were the only permissible rating methods for federally qualified HMOs for private employers; restrictions did not apply to state and local government accounts. The 1988 Amendments provided federally qualified plans additional flexibility to use, at the HMO's option, adjusted community rating for private employers.

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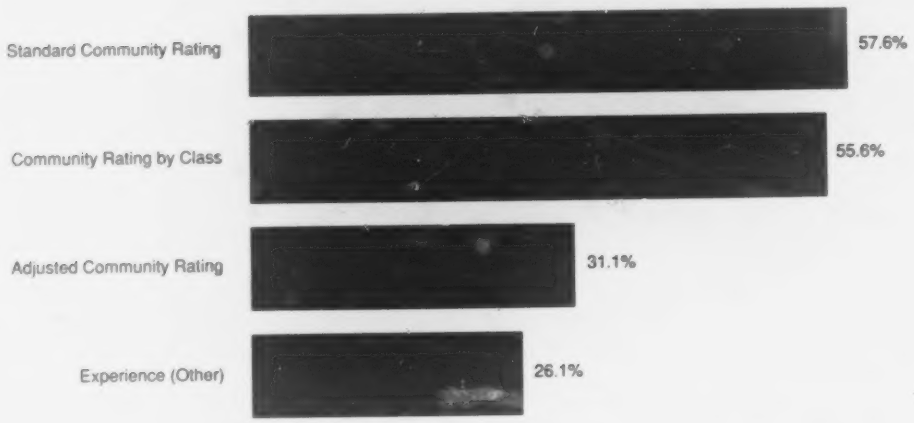
[30] See GHAA's *HMO Market Position* reports for analysis of this issue, as well as volume 3 of the *HMO Industry Profile* for both the 1989 and 1990 edition.

[31] See, for example, "Health Insurance Premiums to Soar in '89" *The Wall Street Journal*, Tuesday, October 25, 1988.

Figure 10
Percent of HMOs Making Any Use of Various Rating Methods, in Private Employer Contracts, Plans Over Three Years Old, 1989[1]



[1] Plans may use more than one method.
SOURCE: GHAA's Annual HMO Industry Survey

Exhibit 8
Profile of Rating Methods Used by HMOs for Private Employers, Plans Over Three Years Old, 1989

Type of Method	% of Plans
I. Community Rating Only (A&B)	73.9%
A. Planwide Methods Only (Standard and/or Community Rating by Class)	54.5%
Standard Only	24.5%
B. Adjusted Community Rating as well as Planwide Methods[1]	19.5%
II. Some Use of Experience (Other Than I)	26.1%
A. Experience Only	5.8%
B. Experience and Community	20.3%

1. No plan used only adjusted community rating.
Source: GHAA's Annual HMO Industry Survey

Under adjusted community rating—which 31.1% of plans used in 1989—rates can be set to reflect anticipated group experience but on a prospective basis; no retrospective adjustment is allowed and certain restrictions are included to encourage affordable rates for smaller employers.[32] These requirements do not apply to other forms of experience rating, which 26.1% of plans indicated they made some use of in 1989. However, the majority of these plans also set rates prospectively with only 38.2% indicating that some form of retrospective adjustment was used in establishing rates. Both adjusted community rating and other forms of experience rating were less likely to be used by new plans.

Exhibit 8 profiles the rating practices used by plans for private employer groups, taking into account the fact that plans used a combination of methods across their various groups (see also Table

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[32] See Public Law 100-517, "Health Maintenance Organization Amendments of 1988," October 24, 1988.

15). Most plans (73.9%) used various forms of community rating approaches exclusively in 1989, with 54.5% using only plan-wide methods of which half of these (24.5% of all established plans) continued to use standard community rating exclusively. Some explicit adjustment for group experience was used by about half of the plans. Twenty percent were plans using only adjusted community rating to reflect group experience when this was done; none of these plans used this approach exclusively. Another 26.1% made use of some other form of experience rating. Only 5.8% of plans used this latter approach exclusively.

The rating methods used varied by type of plan although patterns were not necessarily dramatic. Plans in the Mid-Atlantic region were most likely to use community rating; all plans in the region used these rating methods exclusively, with 83.3% of these using only plan-wide approaches and 76.7% continuing to use only standard community rating; this is not surprising since New York State law requires HMOs to use standard community rating.[33] Reliance solely on plan-wide community rating approaches also was more likely for staff and group model plans, plans with 50,000 members or more, or eight years or older, nonprofit plans, federally qualified plans, and plans owned by "other" sponsors. These characteristics (with the exception of federal qualification status) also were associated with greater reliance exclusively on standard community rating.

In contrast, plans making some use of experience rating (other than adjusted community rating) were more likely to be networks or IPAs, located in the East Central region, smaller and younger, nonfederally qualified, and owned by Blue Cross-Blue Shield or commercial insurers.

An overall summary of the impact of plan rating methods is shown in Figure 11 which presents information on the mean percentage of a plan's *total* enrollment rated using different approaches in 1989 (see also Table 16). On average, 39.4% of enrollees were rated using standard community rating, 34.6% by community rating by class, 10.6% by adjusted community rating, and 15.4% by other forms of experience rating. These averages varied by plan characteristic, reflecting the different rating method profiles previously discussed.

The rating methods used by plans probably reflects in part the capabilities of their data systems although this would not seem to be the sole criterion.

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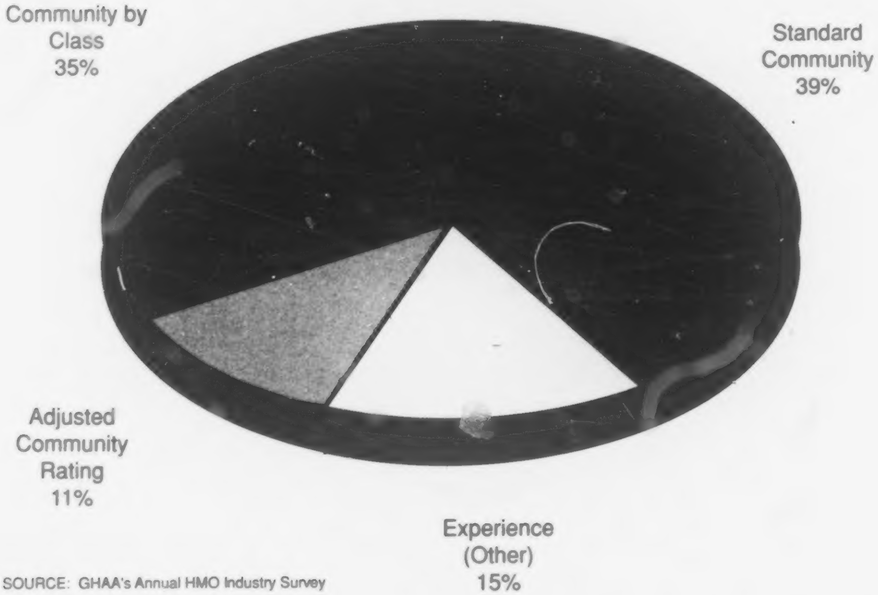
[33] Article 44 of the Insurance Statute of the State of New York.

Figure 11
Mean Percent of Enrollees Covered by Various Rating Methods,
Plans Over Three Years Old, 1989



SOURCE: GHAA's Annual HMO Industry Survey

Plans differed in the ability of their data systems to support various kinds of rating. At the same time, a higher percentage of plans had data systems providing information needed for a given approach than used that approach. The majority of plans indicated that their information systems were capable of providing the information needed for each of the four types of rating; according to the plans, two-thirds would be able to support each type of rating within 12 months (Figure 12).

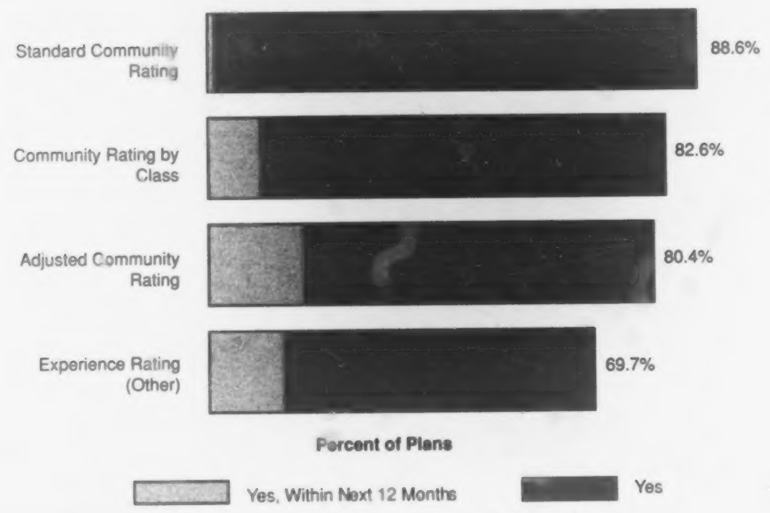
At the time of the survey, 87.5% of plans had the information needed for standard community rating, 72.9% for community rating by class, 63.0% for adjusted community rating, and 55.8% for experience rating. Data system enhancements also were underway in plans, with an additional 17.4% expecting to have needed information for adjusted community rating within 12 months. Comparable figures were 13.9% and 9.7% respectively for experience rating and community rating by class.

Trends, 1986-1989

Between 1988 and 1989, the major change in rating methods used by plans was the shift toward use of adjusted community rating. A similar percentage of plans were using community rating exclusively in 1988 and 1989 (about three-quarters) but 19.5% of these used adjusted community rating in 1989, an option not previously available. The percentage of plans making some use of experience rating was unchanged between the two years.

This differs from the 1986-1988 period in which there was some growth in the percentage using experience rating. The percentage of plans using only standard community rating also declined between 1986-1988, with a growth in use of community rating by class. Although this also may have been occurring in 1989, patterns are more difficult to discern in 1989 because of the other changes underway and the related analytical changes made this year.

Figure 12
Percent of Plans Whose Information Systems Were Capable of Providing Information Needed for Various Kinds of Ratings, Plans Over Three Years Old, 1989



SOURCE: GHAA's Annual HMO Industry Survey

Exhibit 9
Mean Percentage of Enrollees Rated Using Different Methods, Plans Over Three Years Old, 1986–1989

	1986	1988	1989	Plans Reporting Both 1988	Plans Reporting Both 1989
Standard Community	65.8%	46.6%	39.4%	47.6	45.1
Community by Class	23.6%	38.4%	34.6%	38.6	34.2
Adjusted Community*	—	—	10.6%	—	8.2
Experience (Other)	10.6%	15.0%	15.4%	13.8	12.5

* Defined specifically in the 1988 Amendments to the federal HMO Act.
Source: GHAA's Annual HMO Industry Surveys

Exhibit 9 summarizes the rating changes between 1986 and 1989 when viewed with respect to the average percentage of enrollment rated using each method. This comparison is consistent with the patterns noted above. In cross-sectional terms, an average 10.6% of a plan's enrollment was rated using adjusted community rating in 1989. This growth seems to have resulted from a shift from other community rating approaches and among them; there was no change in the percentage of enrollees rated by experience rating between the two years. The results noted above are generally consistent with those based on analysis restricted solely to plans reporting in both 1988 and 1989. However, within this smaller set of plans, there also was a small decline in the percentage of enrollees rated using experience rating.

VI. HMO DIVERSIFICATION AND EMPLOYER DATA REQUESTS

This section presents information on the extent and kinds of efforts HMOs have underway to diversify their product or enter new lines of business, the development of agreements with other HMOs to address the needs of national employer accounts, and the extent and kinds of data requests employers were making on HMOs in 1989. In pursuing these initiatives, HMOs have been responding at least in part to the pressures plans perceived from employers and the marketplace for various options; these pressures were documented in last year's edition of the *HMO Industry Profile*.[34]

Unless otherwise indicated, statistics are for plans over three years old ("established plans").

Diversification into Other Lines of Business

In 1989, 43.7% of established plans (24.1% of new plans) indicated that they offered "additional benefit options or "lines of business" other than the traditional HMO comprehensive health care benefit" (Figure 13; see also Table 17).

Thirty-four percent of established plans (24.1% of new plans) reported that they had diversified into one or more of five areas specifically queried. These included preferred provider options, indemnity options, open-ended options, exclusive multiple options, and employer self-insured options. The latter two options were included for the first time this year. An exclusive multiple option offers employers the ability to substitute a total replacement product for their

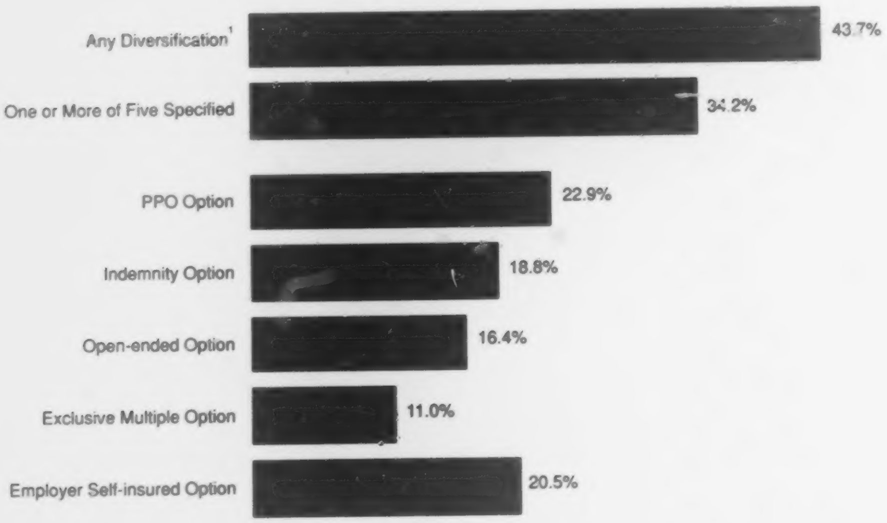


Figure 13

Percent of Plans Reporting Diversification by Type, Plans Over Three Years Old, 1989

[1] "Does your plan offer additional benefit options or 'lines of business' in your operations other than traditional comprehensive health benefits coverage?"

SOURCE: GHAA's Annual HMO Industry Survey

current health benefits; with self-insured options, employers have an ability to share some or all of the risk for HMO enrollees rather than having the HMO absorb it all on a fully prepaid basis.[35] (Other kinds of diversification covered in prior years but not specifically in 1989 include utilization review services, free standing benefits marketed separately, claims processing for other organizations, employee assistance programs, and worker's compensation programs and services.)

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[34] See pages 44-49 (and related tables) in GHAA's *HMO Industry Profile (1989 Edition)* volume 1 "Benefits, Premiums, and Market Structure in 1988" Group Health Association of America, Inc. Washington, D.C. June 1989.

The extent of diversification varied by type of plan. Among established plans, any form of diversification was most likely for plans in the South Atlantic or Mountain Pacific regions (51.1% and 54.3% respectively), plans with 20,000-49,999 or 100,000 members or more (52.7% and 50.8% respectively), for profit plans (51.4%), federally qualified plans (49.7%), and plans owned by commercial insurers or "others" (77.8% and 50.0% respectively). It was least likely for plans in the New England or Mid-Atlantic regions (28.6% and 20.6% respectively) and for plans owned by Blue Cross and Blue Shield organizations or independent national HMO chains (27.1% and 29.4% respectively).

More specifically, 22.9% of plans provided a preferred provider organization (PPO) option; 18.8% an indemnity option; 16.4% an open ended HMO option; 11.0% an exclusive multiple option; and 20.5% an employer self-insured option. As noted previously, 34.2% of plans offered one or more of these five particular options.

Plans more likely to be offering these five options were network and IPA model plans (36.8% and 43.1% respectively), West Central and Mountain Pacific plans (42.9% and 50.0% respectively), plans 4-7 years old (39.9%), for-profit plans (42.9%), and plans owned by commercial insurers (69.4%). Diversification of this type was least likely for staff model plans (13.5%), and for plans in New England or the Mid-Atlantic states (11.1% and 9.1% respectively).[36]

Although plans offering one or more of these five specific options were somewhat similar to those likely to be diversifying at all, there were differences. For example, staff model plans were among those most likely to report any diversification but least likely to be diversifying into the five areas noted. Rather, diversification for these plans appears to relate less to an HMO's basic line of business, than to involve application of the knowledge gained in that line of business toward related clinical and administrative applications.

The considerably greater likelihood for diversification among plans owned by commercial insurers was striking (Exhibit 10). Sixty-nine percent of these plans reported one or more of the five specified diversifications (77.8% reported any diversification). Compared to all other plans, plans owned by commercial insurers were three times as likely

Exhibit 10
Percent of HMOs With Diversification by Ownership
Plans Over Three Years Old, 1989

	All Plans	Commercial Insurers	BC/BS Plans	All Others
Any Diversification[1]	44%	78%	27%	38%
Any of Five Specified	34%	69%	28%	36%
PPO Option	23%	50%	12%	18%
Open-ended Option	16%	46%	12%	9%
Indemnity Option	19%	59%	8%	10%
Exclusive Multiple Option	11%	36%	8%	5%
Employer Self-insured Option	21%	49%	10%	15%

[1] Based on the question "Does your plan offer additional benefit options or 'lines of business' in your operations other than the traditional HMO comprehensive health benefits coverage".
Source: GHAA's Annual HMO Industry Survey

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[35] Because these options were not specifically defined in this year's questionnaire, definitions used by individual plans in responding may have varied.

[36] It also appears that diversification in these ways may be less for plans owned by "others" but the small number of plans involved makes analysis difficult. Only 12.5% of these plans reporting full data on all five diversification areas noted one of the five specified changes. At the same time, 30.0% of plans in total reported having an open-ended option; this includes plans which may have omitted answering other diversification items because they were not relevant. These results would suggest that diversification was unlikely in these areas with the exception of open-ended options.

to have a PPO option, four to five times as likely to have an open-ended option, six times as likely to have an indemnity option or exclusive multiple option, and three to four times as likely to have an employer self-insured option.

These results are not surprising. Many commercial insurers have made a deliberate business decision to offer an integrated set of managed care options. Interestingly, this degree of integration does not extend to plans owned by Blue Cross and Blue Shield organizations, for whom the extent of diversification is similar to those of other non-commercially insured plans. Although many of these Blue Cross and Blue Shield plans are part of organizations offering some of these options, apparently the parent organization has not developed an integrated set of options to the same extent.

Finally, the extent of diversification reported in 1989 was similar to that in 1988. In 1988, 47.0% of plans reported some diversification, with 23.7% offering a PPO option, 21.2% an indemnity option, and 15.7% an open-ended option. This consistency and lack of growth between 1988 and 1989 is somewhat surprising in light of the widespread attention given to the development of a varied set of managed care options. There are several possible explanations for this disparity: that diversification is less than perceived; that diversification is occurring but not picked up in the survey which focuses on diversification by HMO entities; or that diversification has occurred, but in many cases more recently than would be identified through a survey focusing on March 31, 1989.

One area where diversification could be occurring more recently is the development of open-ended or self-referral options. The HMO Act Amendments of 1988 allow federally qualified HMOs to offer a limited self-referral option, permitting up to 10% of a plan's routine physician services to be provided by nonplan physicians; a reasonable deductible may be charged for these services. The results from GHAA's *HMO Market Position Report* based on a survey of a sample of members in December 1989 suggests that the share of plans offering these options grew in 1990, with a number offering the option for the first time.[37]

Development of Agreements with Other HMOs

Employers, particularly large employers, are becoming increasingly active in managing their health benefit programs. Among their concerns is the perceived administrative burden of managing numerous health benefit options that can become particularly extensive with geographically dispersed workforces. Some employers also have expressed interest in streamlining their programs to deal only with a single umbrella entity or a limited number of organizations.

Forty-seven percent of established plans (27.6% of new plans) either had agreements or were in the process of implementing agreements with other HMOs to address the needs of national accounts or employers who wish to offer HMO options under a single umbrella entity. Of these 138 plans with agreements, the most common approach was to have agreements with HMOs owned by the same company or part of the same chain (57.0% of plans). The second most common approach (47.2%) was for agreements with HMOs with the same organizational affiliation (e.g. Blue Cross and Blue Shield owned plans). Twenty-three percent of plans had agreements with other HMOs which were located outside the plan's usual market area. Only 3.3% were affiliated with other HMOs in the same market.

Employer Requests for HMO Data

In 1989, employers continued to request that HMOs provide data on a variety of aspects of their operations. Exhibit 11 shows the percentage of the average plan's enrollment covered in data requests of various types for 1989. In 1989, over 90% of plans received some request for data on utilization, cost of services, or the financial stability of the plan. Eighty-three percent received requests relating to quality of care; 76.7% received requests on enrollee demographics.

These requests tended to cover a substantial share of the average plan's enrollment. Forty-six percent of plans indicated that utilization requests applied to more than a quarter of their enrollment; the comparable figures for cost of services and financial stability were 41% and 42% respectively. The extent of requests were somewhat less for demographic data

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[37] See, Gold and Hodges, *HMO Market Position Report: Results of a November 1989 Member Plan Survey* Group Health Association of America, Washington, D.C., December 1989. In this survey in which plans were sampled proportionate to HMO enrollment, 26% of plans indicated they would offer a self referral option in January 1990, a fifth (5%) for the first time. In addition, 19% indicated they would introduce such an option later in 1990.

Exhibit 11
Distribution of HMOs by the Mean Percentage of Enrollment Included in Data Requests of Various Types, Plans Over Three Years Old, 1989

Data Type	Number of Plans	% of Enrollment				
		0%	1–10%	11–25%	26–50%	More than 50%
Utilization of Services	281	8.5%	20.6%	24.9%	23.8%	22.1%
Demographics of Enrollees	275	23.3%	29.8%	21.8%	15.3%	9.8%
Quality of Care	277	17.0%	39.7%	20.9%	12.6%	9.7%
Cost of Services	280	8.2%	32.5%	18.2%	21.4%	19.6%
Financial Stability of Plan	279	9.7%	29.4%	19.4%	20.4%	21.1%

Source: GHAA's Annual HMO Industry Survey

and quality of care data. Twenty-five percent of plans had demographic requests covering 26% or more of their enrollment; 22% had a comparable level of requests for quality of care data.

The fewer requests for quality of care data could reflect the greater difficulty in developing appropriate measures of quality and formulating an approach to this area. A full examination of quality is complex and burdensome both for employers and HMOs; it may be perceived to be preferable to some to have some central body (e.g., the National Committee on Quality Assurance or the Joint Commission on the Accreditation of Healthcare Organizations) perform this function for employers.

In contrast, the lesser extent of requests for demographic data may indicate the availability of these data within the employer's personnel department. Alternatively, these requests may not be targeted specifically but may be included as a byproduct of requested utilization data.

The extent of employer requests in 1989 did not differ to a considerable extent from those reported in 1988. However, it is possible that the magnitude or nature of data requested has changed over time. These changes would not be detected from the general questions asked of plans in the Survey. Finally, last year's reported results for 1988 indicated that almost all plans were able to comply at least partially with the majority of requests for each type of data. Plans were most likely to be able to respond to results for financial stability data; data on utilization or cost of services were the most difficult to provide.

DETAILED TABLES

LIST OF DETAILED TABLES

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GUIDE TO USING THE DETAILED TABLES

All detailed tables contain statistics for all responding plans, as well as separate statistics for those plans with more than three years operational experience. *Caution should be used in examining data in tables to be sure that the data used are for the desired plan age group.* Tables present data by plan age in either of two ways: as separate columns or as sequential rows of data. The data are ordered with totals first for all plans, followed by data for plans over three years of age.

Most tables provide separate statistics for plans of various characteristics. The characteristics, which are consistent across tables, are: model, region, size, plan age, tax status, federal qualification status, and ownership.

Definitions used in arraying plans by these characteristics are indicated below.

MODEL TYPE (Defined in the Questionnaire)

Plans were asked to identify which model best reflects the *predominant* components of the plan.

Staff:	An organized prepaid health care system that delivers health services through a salaried physician group that is employed by the HMO Unit.
Group:	An organized prepaid health care system that contracts with one independent group practice to provide health services.
Network:	An organized prepaid health care system that contracts with two or more independent group practices to provide health services.
IPA:	An organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations of physicians in independent practice, and/or with one or more multi-specialty group practices (but the plan is predominately organized around solo/single specialty practices) to provide health services.

REGION (GHAA-coded based on the state the plan indicated had the largest share of its enrollment)

New England:	Includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
Mid-Atlantic:	Includes New Jersey, New York, and Pennsylvania.
South Atlantic:	Includes Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.
East Central:	Includes Alabama, Illinois, Indiana, Kentucky, Michigan, Mississippi, Ohio, Tennessee, and Wisconsin.
West Central:	Includes Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas.
Mountain/ Pacific:	Includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, and Guam.

SIZE

Based on collapsed codes from plan-reported data on total enrollment as of March 31, 1989.

TAX STATUS

Tax status was requested as of March 31, 1989.

FEDERAL QUALIFICATION STATUS

Based on plan-reported data. Plans indicating that they were federally qualified in some service areas were included in the federally qualified group. Federal qualification status was requested as of March 31, 1989.

OWNERSHIP

Based on recoding from plan-indicated data. Independent plans refer to plans independently owned by an HMO company. Provider-sponsored plans include plans owned by physicians, hospitals, or combinations, either as independent plans or part of chains. Plans owned by "other insurers" also include those of mixed ownership where the insurer appeared the majority owner. Plans owned by National HMO Chains include both those independently owned and those owned by a mix of parties where the majority owner was not clear. Plans owned by "others" tended to be cooperatives, county-sponsored, church or university owned, or publicly operated.

Table 1
Selected Characteristics of Responding HMOs, by Plan Age, 1989[1]

Selected Characteristics	All Plans			Plans > 3 Years Old			Plans ≤ 3 Years Old		
	No. of Plans	% of Plans	% of Enrollees	No. of Plans	% of Plans	% of Enrollees	No. of Plans	% of Plans	% of Enrollees
TOTAL	332	100.0	100.0	303	100.0	100.0	29	100.0	100.0
MODEL									
Staff	43	13.0	16.0	41	13.5	16.3	2	6.9	2.0
Group	53	16.0	35.4	51	16.8	36.2	2	6.9	0.5
Network	44	13.3	13.0	39	12.9	12.4	5	17.2	34.6
IPA	192	57.8	35.7	172	56.8	35.0	20	69.0	62.9
REGION									
New England	24	7.2	8.2	21	6.9	8.2	3	10.3	4.9
Mid-Atlantic	39	11.7	12.1	34	11.2	12.2	5	17.2	10.0
South Atlantic	57	17.2	11.0	48	15.8	10.1	9	31.0	51.3
East Central	91	27.4	18.4	87	28.7	18.6	4	13.8	7.0
West Central	46	13.9	9.4	42	13.9	9.1	4	13.8	20.4
Mountain/Pacific	75	22.6	40.9	71	23.4	41.7	4	13.8	6.5
SIZE									
0–19,999	102	30.7	4.0	79	26.1	3.3	23	79.3	34.1
20,000–49,999	96	28.9	11.7	93	30.7	11.7	3	10.3	13.9
50,000–99,999	69	20.8	19.3	67	22.1	19.2	2	6.9	21.9
100,000–249,999	50	15.1	26.9	49	16.2	26.9	1	3.4	30.0
250,000 +	15	4.5	38.1	15	5.0	39.0	0	—	—
PLAN AGE									
2–3	29	8.7	2.3	—	0.0	0.0	29	100.0	100.0
4–7	154	46.4	21.6	154	50.8	22.1	—	—	—
8–15	103	31.0	35.9	103	34.0	36.7	—	—	—
16–25	34	10.2	12.0	34	11.2	12.3	—	—	—
26 +	12	3.6	28.2	12	4.0	28.9	—	—	—
TAX STATUS									
Nonprofit	132	39.8	59.4	123	40.6	60.4	9	31.0	16.6
For-Profit	200	60.2	40.6	180	59.4	39.6	20	69.0	83.4
QUALIFICATION STATUS									
Federally qualified	202	60.8	80.6	193	63.7	81.0	9	31.0	64.7
Non-qualified	130	39.2	19.4	110	36.3	19.0	20	69.0	35.3
OWNERSHIP									
Blue Cross/Blue Shield	55	16.6	12.4	51	16.8	12.5	4	13.8	9.7
Other Insurer	58	17.5	9.0	56	18.5	9.2	2	6.9	2.4
National HMO Chain	37	11.1	28.8	35	11.6	29.4	2	6.9	2.6
Independent	89	26.8	33.7	81	26.7	33.9	8	27.6	23.4
Provider-sponsored	83	25.0	14.0	70	23.1	12.9	13	44.8	61.8
Other	10	3.0	2.1	10	3.3	2.1	0	—	—

Notes:
1. Based on plan characteristics as of March 31, 1990.

Source: GHAA's Annual HMO Industry Survey

Table 2
Percent of HMOs Offering Coverage for Selected Benefits[1] in Their Best Selling Benefit Package and Extent of Coverage Offered, by Plan Age, 1989[1,2]

Type of Benefit	Number of Respondents	Type of Coverage					
		Any Coverage	No Limits & No Copays	Limits Only	Copays Only	Limits & Copays	Not Covered
All Plans							
Primary care visits[3]	305	100.0	37.0	0.0	62.0	1.0	0.0
Hospitalization[3]	303	100.0	78.5	2.6	17.2	1.7	0.0
Pharmacy	307	95.4	3.6	3.3	58.9	29.6	4.6
Outpatient mental health[3]	307	99.3	0.7	0.7	19.7	78.4	0.7
Inpatient mental health	304	93.7	1.3	59.8	0.0	32.6	6.3
Home health	302	99.7	61.9	23.2	10.3	4.3	0.3
Skilled nursing	304	98.0	23.4	66.4	2.3	5.9	2.0
Plans > 3 Years							
Primary care visits[3]	283	100.0	39.2	0.0	60.1	0.7	0.0
Hospitalization[3]	281	100.0	79.0	2.5	17.1	1.4	0.0
Pharmacy	282	95.4	3.9	3.6	59.2	28.7	4.6
Outpatient mental health[3]	282	99.3	39.0	21.2	0.4	77.0	0.7
Inpatient mental health	282	93.3	0.7	59.9	0.0	32.6	6.7
Home health	280	99.6	61.4	24.3	9.3	4.6	0.4
Skilled nursing	282	97.9	22.3	67.4	2.5	5.7	2.1
Plans ≤ 3 Years							
Primary care visits[3]	22	100.0	9.1	0.0	86.4	4.5	0.0
Hospitalization[3]	22	100.0	72.7	4.5	18.2	4.6	0.0
Pharmacy	22	95.5	0.0	0.0	54.5	40.9	4.6
Outpatient mental health[3]	22	100.0	0.0	0.0	86.4	4.5	0.0
Inpatient mental health	22	100.0	9.1	59.1	0.0	31.8	0.0
Home health	22	100.0	68.2	9.1	22.7	0.0	0.0
Skilled nursing	22	100.0	36.4	54.5	0.0	9.1	0.0

Notes:

1. Excludes plans whose best selling package is a Medicare or Medicaid package (n = 25).
2. Includes benefits covered in riders typically (i.e., over 50% of the time) purchased with the package.
3. Federally qualified plans are required to cover these benefits as well as others.

Source: GHAA's Annual Industry Survey

Table 3
Percent of HMOs Offering Coverage for Selected Benefits[1] in Their Best Selling Benefit Package and Extent of Coverage Offered, by Federal Qualification Status and Plan Age, 1989[1,2,3]

Type of Benefit	Federally Qualified Plans					Non-Federally Qualified Plans				
	No Limits & No Copays	Limits Only	Copays Only	Limits & Copays	Not Covered	No Limits & No Copays	Limits Only	Copays Only	Limits & Copays	Not Covered
All Plans										
Primary care visits	36.3	0.0	62.7	1.0	0.0	38.4	0.0	60.7	0.9	0 0
Hospitalization	81.3	1.6	16.1	1.0	0.0	73.9	4.5	18.9	2.7	0.0
Pharmacy	4.1	5.3	54.9	31.6	4.1	2.7	0.0	65.8	26.1	5.4
Outpatient mental health	0.5	15.1	0.5	83.9	0.0	0.9	27.4	0.9	69.0	1.8
Inpatient mental health	0.5	57.6	0.0	35.6	6.3	2.7	63.7	0.0	27.4	6.2
Home health	69.1	16.2	11.0	3.7	0.0	0.9	35.2	9.0	5.4	0.9
Skilled nursing	24.5	66.7	2.6	5.2	1.0	21.4	66.1	1.8	7.1	3.6
Plans > 3 Years										
Primary care visits	37.1	0.0	61.8	1.0	0.0	43.3	0.0	56.7	0.0	0.0
Hospitalization	81.1	1.6	16.2	1.1	0.0	75.0	4.2	18.8	2.1	0.0
Pharmacy	4.3	5.4	54.8	31.2	4.3	3.1	0.0	67.7	24.0	5.2
Outpatient mental health	0.5	15.7	0.5	83.2	0.0	1.0	31.6	0.0	65.3	2.0
Inpatient mental health	0.5	57.1	0.0	35.9	6.5	1.0	65.4	0.0	26.5	7.1
Home health	69.0	16.8	10.4	3.8	0.0	46.9	38.5	7.3	6.3	1.0
Skilled nursing	24.3	66.5	2.7	5.4	1.1	18.6	69.1	2.0	6.2	4.1
Plans ≤ 3 Years										
Primary care visits	14.3	0.0	0.0	0.0	0.0	6.7	0.0	86.6	6.7	0.0
Hospitalization	85.7	0.0	14.3	0.0	0.0	66.6	6.7	20.0	6.7	0.0
Pharmacy	0.0	0.0	[illegible]	42.9	0.0	0.0	0.0	53.3	40.0	6.7
Outpatient mental health	0.0	0.0	0.0	100.0	0.0	0.0	0.0	6.7	93.3	0.0
Inpatient mental health	0.0	71.4	0.0	28.6	100.0	13.4	53.3	0.0	33.3	0.0
Home health	71.4	0.0	28.6	0.0	0.0	66.7	13.3	20.0	0.0	0.0
Skilled nursing	28.6	71.4	0.0	0.0	0.0	40.0	46.7	0.0	13.3	0.0

Notes:

1. Excludes plans whose best selling package is a Medicare or Medicaid package (n = 25).
2. Includes benefits covered in riders typically (i.e., over 50% of the time) purchased with the package.
3. See Table X for the number of plans responding for each benefit question.
4. Federally qualified plans are required to cover these benefits as well as others.

Source: GHAA's Annual Industry Survey

Table 4
Copayments, Deductibles, and Coinsurance Required by HMOs on Selected Benefits Included in the Best Selling Benefit Package, by Plan Age, 1989

		Covered Service[1]								
		Copayment			Deductible			Coinsurance		
	Not Covered	% Requiring	Mean	Range	% Requiring	Mean	Range	% Requiring	Mean	Range
All Plans										
Primary care visits	0.0	62.3	5.52	2-15	0.7	254.00	8-500	1.3	20.0	10-30
Hospitalization	0.0	12.5	127.88	5-500	2.3	307.14	100-1000	5.6	19.4	10-30
Pharmacy	4.6	83.1	3.85	1-10	11.7	76.27	2-500	8.6	25.2	10-50
Outpatient mental health	0.7	62.7	17.34	2-40	0.7	325.00	150-500	19.5	41.0	20-50
Inpatient mental health	6.3	15.2	106.35	100-500	2.1	200.00	100-500	18.0	27.5	10-50
Home health	0.3	9.6	6.71	3-17	0.3	150.00	**	4.3	24.2	10-50
Skilled nursing	2.0	2.3	82.50	5-200	0.3	25.00	**	6.0	22.2	10-50
Plans > 3 Years										
Primary care visits	0.0	60.1	5.50	2-10	0.7	254.00	8-500	1.4	20.0	10-30
Hospitalization	0.0	12.4	116.77	5-400	2.5	307.14	100-1000	5.3	19.3	10-30
Pharmacy	4.6	82.2	3.90	1-10	11.5	77.13	2-500	8.6	24.3	10-50
Outpatient mental health	0.7	61.2	17.31	2-40	0.7	325.00	150-500	19.9	41.1	20-50
Inpatient mental health	6.7	15.3	200.00	100-500	2.3	200.00	100-500	17.9	27.6	10-50
Home health	0.4	8.9	6.88	3-20	0.4	150.00	**	4.6	24.2	10-50
Skilled nursing	2.1	2.5	82.50	5-200	0.4	25.00	**	5.8	22.5	10-50
Plans ≤ 3 Years										
Primary care visits	0.0	90.9	5.74	2-15	0.0	—	—	0.0	—	—
Hospitalization	0.0	13.6	300.00	100-500	0.0	—	—	9.1	20.0	*
Pharmacy	4.6	95.2	3.42	1-5	14.3	67.67	3-100	9.5	35.0	20-50
Outpatient mental health	0.0	81.8	17.67	3-30	0.0	—	—	13.6	40.0	20-50
Inpatient mental health	0.0	13.6	500.00	**	0.0	—	—	19.0	13.4	20-50
Home health	0.0	18.2	5.75	3-10	0.0	—	—	0.0	—	—
Skilled nursing	0.0	0.0	—	—	0.0	—	—	9.1	*	*

Notes:
1. Percentages for plans requiring financial payments are based only on those plans covering the benefit.
* Data are not shown where cell size is less than 4 plans.
** Range not applicable—mean is based on only one plan or all plans reported the same value.
Source: GHAA's Annual HMO Industry Survey

Table 5
Types of Limits Required by HMOs on Selected Benefits Included in the Best Selling Benefit Package, by Plan Age, 1989

		Covered Service[1]						
		Visit/Day Limit[2]			Dollar Limit[2]			Other Limit[3]
	Not Covered	% Using	Mean	Range	% Using	Mean[4]	Range	% Using
All Plans								
Primary care visits	0.0	0.0	—	—	*	*	*	1.0
Hospitalization	0.0	1.3	312.0	100–365	*	*	*	3.0
Pharmacy	4.6	*	*	*	7.9	8,172	300–100,000	27.9
Outpatient mental health	0.7	88.7	21.8	3–60	*	*	*	28.4
Inpatient mental health	6.3	93.0	33.4	7–120	*	*	*	20.3
Home health	0.3	8.6	60.3	3–240	*	*	*	18.6
Skilled nursing	2.0	68.2	123.0	14–730	*	*	*	11.4
Plans > 3 Years								
Primary care visits	0.0	—	—	—	*	*	*	0.7
Hospitalization	0.0	1.4	312.0	100–365	*	*	*	2.5
Pharmacy	4.6	*	*	*	6.7	4,737	500–100,000	28.6
Outpatient mental health	0.7	88.5	21.7	3–60	*	*	*	29.9
Inpatient mental health	6.7	93.2	33.5	7–120	*	*	*	21.3
Home health	0.4	9.3	60.3	3–240	*	*	*	19.4
Skilled nursing	2.1	69.3	123.7	14–730	*	*	*	11.6
Plans ≤ 3 Years								
Primary care visits	0.0	0.0	—	—	*	*	*	4.5
Hospitalization	0.0	0.0	—	—	*	*	*	9.1
Pharmacy	4.6	*	*	*	23.8	11,860	300–50,000	19.0
Outpatient mental health	0.0	90.5	23.0	20–50	*	*	*	9.1
Inpatient mental health	0.0	90.9	31.7	7–60	*	*	*	9.1
Home health	0.0	0.0	—	—	*	*	*	9.1
Skilled nursing	0.0	54.5	112.9	30–365	*	*	*	9.1

Notes:

1. Percent of plans using limits is based only on those plans covering the benefit.
2. Limit refers to visits for primary care, outpatient mental health, and both kinds of alcohol and drug services. Limit refers to days for hospitalization and inpatient mental health. This item was not specifically requested for pharmacy services. For this item, a dollar amount was requested.
3. Refers to whether or not any other limit (other than that cited in note 2) was indicated by the plan.
4. Excludes one plan reporting a dollar limit of $100,000 for pharmacy benefit.

*Not applicable (see note 2).

**Range not applicable—mean is based on only one plan or all plans reported the same value.

Source: GHAA's Annual HMO Industry Survey

Table 6
Extent of Cost Sharing in Best Selling Package for Primary Care Visits and Hospitalization by Plan Age and Selected Plan Characteristics, 1989

	Primary Care Visits				Hospitalization					
Selected Characteristics	% Covering	% Cost Sharing[1,2]	% Copay	Mean Co-payment ($)	% Covering	% Cost Sharing[1,3]	% Copay	Mean Co-payment ($)	% Coins.	Mean Coins.
All Plans (n = 305)	100.0	63.0	62.3	5.52	100.0	18.8	12.5	127.88	5.6	19.4
MODEL										
Staff	100.0	38.9	38.9	3.86	100.0	13.9	5.6	*	5.6	*
Group	100.0	51.0	51.0	6.00	100.0	6.0	6.0	*	0.0	—
Network	100.0	43.2	43.2	4.73	100.0	18.9	10.8	*	8.1	*
IPA	100.0	75.1	74.0	5.70	100.0	23.2	16.0	148.20	6.6	19.1
REGION										
New England	100.0	72.7	72.7	4.56	100.0	0.0	—	—	—	—
Mid-Atlantic	100.0	70.3	70.3	3.81	100.0	5.6	5.6	*	0.0	—
South Atlantic	100.0	74.5	74.5	7.08	100.0	31.4	23.5	121.36	3.9	25.0
East Central	100.0	36.6	36.6	6.72	100.0	9.8	3.7	280.00	4.9	*
West Central	100.0	56.5	56.5	5.42	100.0	30.4	23.9	131.88	8.7	*
Mountain/Pacific	100.0	83.6	80.6	4.96	100.0	25.4	14.9	104.44	10.4	18.6
SIZE										
0–19,999	100.0	64.6	64.6	5.57	100.0	18.3	7.3	125.00	8.5	18.6
20,000–49,999	100.0	73.7	71.6	5.88	100.0	25.3	20.0	103.67	6.3	20.0
50,000–99,999	100.0	53.8	53.8	6.00	100.0	16.9	13.8	155.56	3.1	*
100,000 +	100.0	54.0	54.0	4.29	100.0	11.3	6.5	160.00	3.2	*
PLAN AGE										
2–3	100.0	90.9	90.9	5.74	100.0	22.7	13.6	*	9.1	*
4–7	100.0	71.6	71.6	5.89	100.0	21.3	15.6	115.26	5.0	18.3
8–15	100.0	57.0	55.0	5.07	100.0	15.0	9.0	125.00	5.0	18.0
16 +	100.0	33.3	33.3	4.38	100.0	17.1	9.8	*	7.3	*
TAX STATUS										
Nonprofit	100.0	49.1	47.4	4.96	100.0	14.2	6.2	129.17	6.2	17.1
For-profit	100.0	71.2	71.2	5.75	100.0	21.5	16.2	127.59	5.2	21.1
QUALIFICATION STATUS										
Federally qualified	100.0	63.7	63.2	5.40	100.0	17.1	13.5	139.38	4.1	18.8
Non-qualified	100.0	61.6	60.7	5.75	100.0	21.6	10.8	97.22	8.1	20.0
OWNERSHIP										
Blue Cross/Blue Shield	100.0	69.1	67.3	6.22	100.0	29.1	18.2	97.00	12.7	18.6
Other Insurer	100.0	71.9	71.9	5.68	100.0	19.3	15.8	88.13	3.5	25.0
National Chain	100.0	45.5	45.5	4.40	100.0	15.2	15.2	160.00	0.0	—
Independent	100.0	53.8	52.6	4.40	100.0	13.0	6.5	*	5.2	*
Provider-sponsored	100.0	72.0	72.0	6.14	100.0	20.0	12.0	120.00	5.3	20.0
Other	100.0	28.6	28.6	*	100.0	0.0	—	—	—	—

Table 6 (continued)
Extent of Cost Sharing in Best Selling Package for Primary Care Visits and Hospitalization by Plan Age and Selected Plan Characteristics, 1989

	Primary Care Visits				Hospitalization					
Selected Characteristics	% Covering	% Cost Sharing[1,2]	% Copay	Mean Co-payment ($)	% Covering	% Cost Sharing[1,3]	% Copay	Mean Co-payment ($)	% Coins.	Mean Coins.
Plans > 3 Years (n = 283)	100.0	60.8	60.1	5.50	100.0	18.4	12.4	116.77	5.3	19.3
MODEL										
Staff	100.0	37.1	37.1	3.77	100.0	11.4	*	52.50	2.9	*
Group	100.0	50.0	50.0	5.84	100.0	6.1	*	100.00	—	—
Network	100.0	40.0	40.0	4.92	100.0	17.1	*	36.67	5.7	*
IPA	100.0	73.6	72.4	5.69	100.0	23.9	16.0	135.00	7.4	19.1
REGION										
New England	100.0	70.0	70.0	4.50	100.0	0.0	—	—	—	—
Mid-Atlantic	100.0	69.7	69.7	3.87	100.0	6.3	6.3	*	0.0	—
South Atlantic	100.0	71.1	71.1	7.26	100.0	33.3	24.4	123.50	4.4	*
East Central	100.0	36.3	36.3	6.79	100.0	10.0	3.8	*	5.0	20.0
West Central	100.0	52.4	52.4	5.33	100.0	28.6	21.4	79.29	9.5	*
Mountain/Pacific	100.0	82.5	79.4	4.78	100.0	23.8	15.9	104.44	7.9	18.0
SIZE										
0–19,999	100.0	57.8	57.8	5.75	100.0	17.2	6.3	131.25	7.8	18.0
20,000–49,999	100.0	72.8	70.7	5.81	100.0	26.1	20.7	103.67	6.5	20.0
50,000–99,999	100.0	53.1	53.1	5.88	100.0	15.6	12.5	112.50	3.1	*
100,000 +	100.0	54.0	54.0	4.29	100.0	11.3	6.5	160.00	3.2	*
PLAN AGE										
4–7	100.0	71.6	71.6	5.89	100.0	21.3	15.6	115.26	5.0	18.3
8–15	100.0	57.0	55.0	5.07	100.0	15.0	9.0	125.00	5.0	18.0
16 +	100.0	33.3	33.3	4.38	100.0	17.1	*	101.67	7.3	*
TAX STATUS										
Nonprofit	100.0	48.2	46.4	5.02	100.0	14.7	6.4	129.17	6.4	17.1
For-profit	100.0	68.8	68.8	5.71	100.0	20.8	16.2	113.80	4.6	21.4
QUALIFICATION STATUS										
Federally qualified	100.0	62.9	62.4	5.42	100.0	17.2	13.4	123.70	4.3	18.8
Non-qualified	100.0	56.7	55.7	5.67	100.0	20.8	10.4	96.88	7.3	20.0
OWNERSHIP										
Blue Cross/Blue Shield	100.0	66.7	64.7	6.36	100.0	31.4	19.6	97.00	13.7	18.6
Other Insurer	100.0	70.9	70.9	5.79	100.0	20.0	16.4	88.13	3.6	*
National Chain	100.0	46.9	46.9	4.40	100.0	15.6	15.6	160.00	—	—
Independent	100.0	50.7	49.3	4.23	100.0	11.1	5.6	*	4.2	*
Provider-sponsored	100.0	69.2	69.2	6.02	100.0	18.5	10.8	123.33	4.6	20.0
Other	100.0	28.6	28.0	*	100.0	0.0	—	—	—	—
Plans ≤ 3 Years (n = 22)	100.0	90.9	90.9	5.74	100.0	22.7	13.6	300.00	9.1	20.0

Notes:
1. Refers to any use of a copayment, coinsurance, or deductible for the specified benefits.
2. For primary care visits, 1.3% of all plans applied coinsurance requirements, and 0.7% of all plans a deductible.
3. For hospitalization, 2.3% of all plans and a deductible.
* Data are not shown where cell size is less than 4 plans.
Source: GHAA's Annual HMO Industry Survey

Table 7
Percent of HMOs Offering Coverage of Organ Transplants, by Type of Coverage and Plan Age, 1989

Organ	N	Type of Coverage[1] Any Coverage	Basic Benefits	Case-by-Case	Rider	Not Covered
All Plans						
Kidney	324	98.1	80.9	17.2	0.0	1.9
Liver (children with biliary atresia only)	322	92.9	73.3	18.9	0.7	7.1
Liver (all ages)	323	57.3	30.7	24.1	2.5	42.7
Heart	321	72.0	40.5	27.7	3.8	28.0
Heart-Lung	321	49.5	23.4	22.7	3.4	50.5
Pancreas	320	37.5	14.4	20.6	2.5	62.5
Cornea	320	96.6	80.6	15.7	0.3	3.4
Bone Marrow	321	90.0	52.6	36.8	0.6	10.0
Plans > 3 Years						
Kidney	296	98.3	81.8	16.5	0.0	1.7
Liver (children with biliary atresia only)	294	93.9	74.5	18.7	0.7	6.1
Liver (all ages)	295	59.0	30.8	25.5	2.7	41.0
Heart	293	72.7	41.3	27.6	3.8	27.3
Heart-Lung	293	49.8	23.2	23.2	3.4	50.2
Pancreas	292	37.6	14.0	20.9	2.7	62.4
Cornea	292	96.9	80.8	15.8	0.3	3.1
Bone Marrow	293	91.8	53.9	37.2	0.7	8.2
Plans ≤ 3 Years						
Kidney	28	96.4	71.4	25.0	0.0	3.6
Liver (children with biliary atresia only)	28	82.1	60.7	21.4	0.0	17.9
Liver (all ages)	28	39.3	28.6	10.7	0.0	60.7
Heart	28	64.3	32.1	28.6	3.6	35.7
Heart-Lung	28	46.4	25.0	17.9	3.6	53.6
Pancreas	28	35.8	17.9	17.9	0.0	64.2
Cornea	28	92.9	78.6	14.3	0.0	7.1
Bone Marrow	28	71.4	39.3	32.1	0.0	28.6

Notes:

1. Based on asking respondents to indicate whether the transplant procedure was covered in at least one basic benefit package as a rider, or on a case-by-case basis with multiple responses allowed. If included under both basic benefits and on either a case-by-case or rider basis, it was classified under the former. If included under both case-by-case and rider it was classified under case-by-case. Only a small percentage of HMOs gave these responses.

Source: GHAA's Annual HMO Industry Survey

Table 8
Percent of HMOs Offering Coverage of Organ Transplants by Type of Coverage, Plan Age, and Federal Qualification Status, 1989[1]

	Federally Qualified Plans				Non-Federally Qualified Plans			
	Covered				Covered			
Organ	Basic Benefits	Case-by-Case	Rider	Not Covered	Basic Benefits	Case-by-Case	Rider	Not Covered
All Plans[2]								
Kidney	85.4	14.1	0.0	0.5	73.8	22.2	0.0	4.0
Liver (children with biliary atresia only)	82.9	15.1	0.5	1.5	57.7	25.2	0.8	16.3
Liver (all ages)	31.3	21.7	2.5	44.5	29.6	28.0	2.4	40.0
Heart	43.4	26.5	4.1	26.0	36.0	29.6	3.2	31.2
Heart-Lung	25.0	20.9	3.1	51.0	20.8	25.6	4.0	49.6
Pancreas	13.8	17.3	2.0	66.9	15.3	25.9	3.2	55.6
Cornea	87.8	10.7	0.5	1.0	69.4	23.3	0.0	7.3
Bone Marrow	58.4	35.5	1.0	5.1	43.5	38.8	0.0	17.7
Plans > 3 Years								
Kidney	86.2	13.3	0.0	0.5	73.8	22.5	0.0	3.7
Liver (children with biliary atresia only)	83.7	14.2	0.5	1.6	57.7	26.9	1.0	14.4
Liver (all ages)	31.2	22.8	2.6	43.4	30.2	30.2	2.8	36.8
Heart	43.9	25.7	3.7	26.7	36.8	31.1	3.8	28.3
Heart-Lung	25.1	21.4	2.7	50.8	19.8	26.4	4.7	49.1
Pancreas	13.4	17.6	2.1	66.9	15.2	26.7	3.8	54.3
Cornea	87.2	11.2	0.5	1.1	69.5	23.8	0.0	6.7
Bone Marrow	59.6	34.6	1.0	4.8	43.8	41.9	0.0	14.3
Plans ≤ 3 Years								
Kidney	66.7	33.3	0.0	0.0	73.7	21.0	0.0	5.3
Liver (children with biliary atresia only)	66.7	33.3	0.0	0.0	57.9	15.8	0.0	26.3
Liver (all ages)	33.3	0.0	0.0	66.7	26.3	15.8	0.0	57.9
Heart	33.3	44.4	11.2	11.1	31.6	21.0	0.0	47.4
Heart-Lung	22.2	11.1	11.1	55.6	26.3	21.1	0.0	52.6
Pancreas	22.2	11.1	0.0	66.7	15.8	21.0	0.0	63.2
Cornea	100.0	0.0	0.0	0.0	68.4	21.1	0.0	10.5
Bone Marrow	33.3	55.6	0.0	11.1	42.1	21.1	0.0	36.8

Notes:

1. Based on asking respondents to indicate whether the transplant procedure was covered in at least one basic benefit package as a rider, or on a case-by-case basis with multiple responses allowed. If included under both basic benefits and on either a case-by-case or rider basis, it was classified under the former. If included under both case-by-case and rider it was classified under case-by-case. Only a small percentage of HMOs gave these responses.
2. See Table 7 for the number of plans responding to each item.

Source: GHAA's Annual HMO Industry Survey

Table 9
Mean Monthly Premium Rates and Employer Contributions for Single Contracts by Selected Characteristics and Plan Age, Based on Largest Single Account, 1989

	All Plans (n=216)			Plans > 3 Years (n=203)		
		Employer Contribution			Employer Contribution	
Selected Characteristics	**Premium**	**Amount**	**Percent**	**Premium**	**Amount**	**Percent**
TOTAL	102.31	89.40	88.0	102.66	89.61	88.0
MODEL						
Staff	103.32	91.46	88.7	104.50	93.47	90.1
Group	98.28	85.45	87.8	98.28	85.45	87.8
Network	95.97	88.36	91.7	96.35	89.03	92.1
IPA	104.76	90.43	87.2	105.21	90.27	86.6
REGION						
New England	115.90	107.70	93.8	115.66	108.49	94.7
Mid-Atlantic	95.50	87.26	91.1	95.84	87.54	91.1
South Atlantic	107.73	88.14	84.3	109.34	87.91	82.8
East Central	100.84	92.94	92.0	100.77	92.58	91.8
West Central	98.92	79.59	82.0	98.74	79.55	81.9
Mountain/Pacific	100.91	86.20	85.4	101.53	86.97	86.0
SIZE						
0–19,999	95.63	84.90	89.4	95.69	84.29	89.0
20,000–49,999	105.71	86.33	83.1	105.40	86.79	83.7
50,000–99,999	104.54	94.80	91.3	105.11	94.93	90.9
100,000 +	103.18	92.24	89.0	103.18	92.24	89.0
PLAN AGE						
2–3	96.82	86.07	89.3	—	—	—
4–7	100.08	85.58	86.9	100.08	85.58	86.9
8–15	104.53	96.47	92.5	104.53	96.47	92.5
16 +	106.28	86.32	80.8	106.28	86.32	80.8
TAX STATUS						
Nonprofit	103.46	94.25	91.3	103.47	94.05	91.1
For-profit	101.50	86.00	85.8	102.04	86.28	85.6
QUALIFICATION STATUS						
Federally qualified	103.83	90.75	87.8	104.02	90.66	87.5
Non-qualified	99.38	86.80	88.6	99.82	87.43	89.0
OWNERSHIP						
Blue Cross/Blue Shield	106.11	94.90	89.1	106.40	94.87	88.8
Other Insurer	104.80	89.79	86.6	104.72	89.20	86.1
National HMO Chain	98.11	81.70	83.2	98.25	81.15	82.5
Independent	98.74	89.53	90.7	99.51	91.46	91.9
Provider-sponsored	104.77	89.09	87.0	105.03	88.34	86.2
Other	99.62	88.21	90.2	99.62	88.21	90.2

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 10
Mean Monthly Premium Rates and Employer Contributions for Family Contracts by Selected Characteristics and Plan Age, Based on Largest Single Account, 1989

	All Plans (n = 212)			Plans > 3 Years (n = 199)		
		Employer Contribution			Employer Contribution	
Selected Characteristics	**Premium**	**Amount**	**Percent**	**Premium**	**Amount**	**Percent**
TOTAL	263.75	203.25	77.0	264.08	203.47	77.0
MODEL						
Staff	256.66	222.49	86.8	259.31	227.19	88.2
Group	247.62	187.98	76.0	247.62	187.98	76.0
Network	242.21	182.75	74.4	242.91	182.36	73.9
IPA	275.34	207.91	75.4	276.01	207.67	75.2
REGION						
New England	295.26	274.41	94.8	294.60	277.23	96.0
Mid-Atlantic	242.53	216.17	88.9	243.04	215.96	88.7
South Atlantic	261.03	162.59	62.6	263.50	165.29	63.0
East Central	264.90	222.65	83.3	264.25	220.44	82.7
West Central	266.29	181.15	67.9	265.17	179.84	67.6
Mountain/Pacific	263.90	184.49	69.9	265.07	184.08	69.7
SIZE						
0–19,999	252.12	199.44	79.7	251.31	195.25	78.8
20,000–49,999	267.60	173.73	64.9	267.22	174.38	65.2
50,000–99,999	274.13	221.84	80.0	274.80	225.38	81.2
100,000 +	262.06	222.03	84.3	262.06	222.03	84.3
PLAN AGE						
2–3	258.76	199.77	76.3	—	—	—
4–7	258.01	182.25	70.9	258.01	182.25	70.9
8–15	275.92	236.23	85.6	275.92	236.23	85.6
16 +	255.45	192.75	75.7	255.45	192.75	75.7
TAX STATUS						
Nonprofit	264.44	218.65	82.8	264.03	217.18	82.4
For-profit	263.25	192.10	72.7	264.12	192.83	72.8
QUALIFICATION STATUS						
Federally qualified	267.54	204.47	76.0	267.58	204.54	76.0
Non-qualified	256.38	200.87	78.8	256.69	201.22	79.1
OWNERSHIP						
Blue Cross/Blue Shield	273.13	226.17	81.3	273.45	225.12	80.7
Other Insurer	264.82	176.97	66.4	263.52	172.80	65.3
National HMO Chain	255.76	181.82	72.0	256.18	179.16	70.9
Independent	260.50	224.04	85.6	262.20	229.26	87.1
Provider-sponsored	265.90	187.76	70.9	265.49	187.03	71.0
Other	256.04	204.52	82.7	256.04	204.52	82.7

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industrial Survey

Table 11
Distribution of HMOs According to Percentage of Employer Premium Contribution for Largest Single Account by Contract Type and Plan Age, 1989[1]

Contract Type and Plan Age	Number of Respondents	Percentage Employer Contribution						
			Distribution of Plans (in percentages)					
		Mean	100%	99–90%	89–80%	79-70%	69–50%	49% or less
ALL CONTRACT TYPES								
All Plans								
Single	216	88.0	41.7	13.0	10.6	25.9	5.6	3.2
Family	212	77.0	26.4	9.9	11.3	24.5	9.4	18.4
Couple	85	77.8	30.6	15.3	7.1	11.8	18.8	16.5
Parent & Child	70	76.6	25.7	11.4	11.4	14.3	22.9	14.3
Plans > 3 Years								
Single	203	88.0	39.9	13.8	10.8	27.1	5.4	3.0
Family	199	77.0	26.1	9.5	11.6	25.6	9.0	18.1
Couple	76	78.2	30.3	15.8	7.9	11.8	18.4	15.8
Parent & Child	65	76.8	26.2	10.8	12.3	13.8	23.1	13.8
Plans ≤ 3 Years								
Single	13	89.3	69.2	0.0	7.7	7.7	7.7	7.7
Family	13	76.3	30.8	15.4	7.7	7.7	15.4	23.1
Couple	9	74.4	33.3	11.1	0.0	11.1	22.2	22.2
Parent & Child	5	73.9	20.0	20.0	0.0	20.0	20.0	20.0
TYPE OF CONTRACT								
Private Employer								
Single	67	91.3	53.7	14.9	9.0	16.4	4.5	1.5
Family	66	84.1	36.4	19.7	10.6	16.7	7.6	9.1
Couple	38	81.8	34.2	21.1	7.9	10.5	10.5	15.8
Parent & Child	32	81.8	31.3	12.5	15.6	15.6	12.5	12.5
State/Local								
Single	103	91.4	48.5	15.5	16.5	10.7	3.9	4.9
Family	101	75.0	29.7	6.9	15.8	10.9	8.9	27.7
Couple	43	73.5	26.2	11.9	4.8	14.3	23.8	19.0
Parent & Child	34	72.6	23.5	11.8	5.9	14.7	26.5	17.6
Federal								
Single	39	73.1	0.0	2.6	0.0	84.6	10.3	2.6
Family	38	70.5	0.0	2.6	0.0	76.3	13.2	7.9
Couple	0	—	—	—	—	—	—	—
Parent & Child	0	—	—	—	—	—	—	—

Notes:

1. Plans were asked to exclude Medicare and Medicaid contracts. The ALL CONTRACT category also includes 13 "other" kinds of contracts which largely represent small employer associations, non-union employee groups or education related contracts.

Source: GHAA's Annual HMO Industry Survey

Table 12

Mean Monthly Premium Rates in HMOs, 1988, 1989 and Yearly Changes, by Source of Contract and Plan Characteristics, for Largest Single Account, Single and Family Contracts

Source of Contract and Selected Characteristics	All Plans by Contract Type						Plans > 3 Years by Contract Type[1]					
	Single (n = 250)			Family (n = 249)			Single (n = 232)			Family (n = 231)		
	Premiums			Premiums			Premiums			Premiums		
	1988	1989	% Change	1988	1989	% Change	1988	1989	% Change	1988	1989	Change
TOTAL	87.38	102.50	17.7	225.61	266.67	18.6	87.76	102.55	17.4	225.54	266.49	18.5
SOURCE OF CONTRACT												
State/Local	86.93	101.91	17.6	215.69	255.92	18.8	86.86	101.78	17.5	214.73	255.39	19.0
Federal	87.04	103.22	18.9	227.64	266.69	17.4	87.45	103.83	19.1	228.52	268.01	17.6
Private emp./Union	87.58	102.92	18.1	236.34	280.94	19.6	88.08	102.98	17.3	237.53	281.56	19.2
Other	93.71	102.41	8.3	243.64	272.53	11.3	93.46	101.36	7.3	244.40	267.87	8.9
MODEL												
Staff	87.09	101.02	15.7	218.08	254.51	16.3	87.09	101.02	15.7	218.08	254.51	16.3
Group	84.18	98.43	17.4	216.30	250.23	16.3	84.80	98.70	16.6	218.00	251.04	15.5
Network	79.26	94.14	18.5	212.28	247.44	16.9	78.57	93.87	19.1	213.86	250.05	17.3
IPA	89.97	105.63	18.0	232.55	277.83	20.0	90.35	105.87	17.8	232.06	277.55	20.1
REGION												
New England	95.99	113.09	17.9	241.46	289.07	19.5	97.37	113.13	16.0	241.52	286.20	18.2
Mid-Atlantic	76.16	91.38	20.2	199.26	242.64	21.8	76.39	92.10	20.9	199.64	244.50	22.5
South Atlantic	92.83	107.41	16.7	223.94	264.02	18.6	93.64	108.65	16.7	225.90	267.45	18.8
East Central	89.66	104.23	16.1	232.18	272.84	17.6	89.83	104.41	16.1	232.32	272.64	17.4
West Central	82.29	100.98	23.2	227.04	274.46	21.6	82.13	100.31	22.8	225.52	272.59	21.5
Mountain/Pacific	87.59	100.09	14.4	227.67	261.02	15.0	87.24	99.54	14.2	226.52	259.48	14.9
SIZE												
0–19,999	82.85	97.37	17.8	219.53	260.37	18.8	82.71	96.71	17.0	218.57	257.97	18.0
20,000–49,999	87.21	104.29	20.2	221.47	268.27	21.7	87.00	103.79	19.9	220.50	267.61	21.9
50,000–99,999	90.23	105.84	17.5	235.76	278.56	18.4	90.48	106.27	17.7	235.29	278.52	18.6
100,000 +	90.68	103.50	14.4	228.94	261.31	14.3	90.52	103.39	14.5	229.86	262.50	14.4
PLAN AGE												
2–3	85.12	101.88	20.8	226.45	268.97	19.8	—	—	—	—	—	—
4–7	84.19	100.39	19.5	217.89	264.52	21.6	84.19	100.39	19.5	217.89	264.52	21.6
8–15	90.91	104.97	15.9	236.55	275.54	16.8	90.91	104.97	15.9	236.55	275.54	16.8
16 +	90.42	103.81	14.7	224.61	253.00	12.8	90.42	103.81	14.7	224.61	253.00	12.8
TAX STATUS												
Nonprofit	88.39	102.18	15.9	225.35	262.09	16.5	88.67	102.52	15.9	225.64	262.22	16.4
For-profit	86.70	102.72	18.9	225.79	269.80	20.0	86.76	102.57	18.6	225.47	269.59	20.0
QUALIFICATION STATUS												
Federally qualified	88.61	104.22	18.0	229.32	270.67	18.3	88.67	104.47	18.2	229.53	271.42	18.5
Non-qualified	85.24	99.50	17.2	219.04	259.60	19.0	85.41	98.83	16.0	217.72	256.83	18.3
OWNERSHIP												
Blue Cross/Blue Shield	88.03	104.72	19.3	225.78	269.33	19.6	89.19	106.01	18.9	228.27	272.26	19.4
Other Insurer	85.76	105.07	22.6	223.30	276.36	23.9	85.47	104.99	22.9	221.74	275.24	24.2
National Chain	84.97	98.47	16.0	221.92	257.98	16.2	84.78	98.61	16.4	220.79	257.65	16.6
Independent	85.51	98.19	15.4	226.11	260.68	15.7	85.88	98.40	15.3	225.78	260.99	16.0
Provider-sponsored	92.12	106.55	16.2	231.91	271.79	17.8	92.29	105.89	15.1	232.59	269.91	16.6
Other	76.63	91.85	19.4	197.71	240.92	21.7	76.63	91.85	19.4	197.71	240.92	21.7

Notes:

1. For plans ≤ 3 years, the average premium changes are shown under the all plans columns for plan age 2–3 years.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 13
Mean Monthly Premium Rates in HMOs, 1988, 1989 and Yearly Changes, and Distribution of HMOs by Percent Change, by Type of Contract and Plan Age for Largest Single Account

					Decrease					Increase						
Contract Type[1]	N	1988	1989	% Change 88–89	More than 10%	10.0–5.1%	5% or less	Any Decrease	No Change	Any Increase	5% or less	5.1–10.0%	10.1–15.0%	15.1–20.0%	20.1–25.0%	25.1% or more
All Plans																
Single	250	87.38	102.50	17.7	0.8	0.8	0.0	1.6	2.0	96.5	7.2	16.8	19.6	17.6	12.8	22.4
Family	249	225.61	266.67	18.5	0.4	0.4	0.4	1.2	2.0	96.9	6.0	14.5	19.7	16.9	14.9	24.9
Couple	96	184.30	275.30	17.2	1.0	0.0	2.1	3.1	1.0	95.9	7.3	17.7	17.7	14.6	17.8	20.8
Parent w/1 child	81	165.63	193.67	16.9	0.0	1.2	3.7	4.9	2.5	92.7	9.9	13.6	19.8	14.8	13.6	21.0
Composite Rate Only	22	202.27	232.60	13.5	0.0	0.0	0.0	0.0	9.1	90.8	13.6	13.6	13.6	31.8	9.1	9.1
Plans > 3 Years																
Single	232	87.56	102.55	17.4	0.0	0.9	0.9	1.8	1.7	96.5	7.8	15.5	19.8	18.5	13.4	21.6
Family	231	225.54	266.49	18.5	0.4	0.4	0.4	1.2	1.7	97.0	6.5	13.4	19.5	17.3	15.6	24.7
Couple	87	184.88	216.32	17.2	0.0	1.1	2.3	3.5	0.0	96.5	8.0	16.1	18.4	16.1	17.2	20.7
Parent w/1 child	73	167.54	194.23	16.8	0.0	1.4	4.2	6.9	1.4	93.1	11.1	11.1	20.8	16.7	12.5	20.8
Composite Rate Only	20	207.94	239.55	13.6	0.0	0.0	0.0	0.0	10.0	90.0	15.0	10.0	15.0	30.0	10.0	10.0
Plans ≤ 3 Years																
Single	18	85.12	101.88	20.8	0.0	0.0	0.0	0.0	5.6	94.4	0.0	33.3	16.6	5.6	5.6	33.3
Family	18	226.45	268.97	19.8	0.0	0.0	0.0	0.0	5.6	94.5	0.0	27.8	22.2	11.1	5.6	27.8
Couple	9	178.75	208.07	17.1	0.0	0.0	0.0	0.0	11.1	88.9	0.0	33.3	11.2	0.0	22.2	22.2
Parent w/1 child	9	150.31	176.15	18.0	0.0	0.0	0.0	0.0	11.1	88.9	0.0	11.2	33.3	0.0	22.2	22.2
Composite Rate Only	2	145.55	163.12	12.4	*	*	*	*	*	*	*	*	*	*	*	*

Notes:

1. Plans vary in the rating structure they use, with some using only single and family rates. For all plans 23 indicated a single rate was not applicable, 25 that family rates were not applicable, 178 that couple rates were not applicable, 192 that parent and child rates were not applicable, and 251 that composite rates were not applicable.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 14
Percent of HMOs Using Various Rating Methodologies in Private Employer Contracts by Selected Plan Characteristics and Plan Age, 1989[1]

Selected Characteristics	All Plans (n = 280)				Plans > 3 Years (n = 257)[2]			
	Any Use of Std. Comm.	Any Use of CRC	Any Use of ACR	Any Use of Exp.[3]	Any Use of Std. Comm.	Any Use of CRC	Any Use of ACR	Any Use of Exp.[3]
TOTAL	57.9	55.4	30.4	25.4	57.6	55.3	31.1	26.1
MODEL								
Staff	90.0	56.7	30.0	6.7	89.7	58.6	31.0	6.9
Group	65.3	51.0	18.4	8.2	64.6	52.1	18.8	8.3
Network	61.8	61.8	23.5	23.5	61.3	61.3	25.8	25.8
IPA	49.1	55.1	35.3	34.1	48.3	54.4	36.2	35.6
REGION								
New England	78.9	47.4	21.1	10.5	81.3	50.0	18.8	12.5
Mid-Atlantic	97.0	12.1	18.2	—	96.7	10.0	16.7	—
South Atlantic	59.6	68.1	31.9	19.1	61.5	66.7	35.9	20.5
East Central	50.0	56.4	34.6	41.0	48.0	56.0	34.7	42.7
West Central	52.5	70.0	30.0	22.5	54.1	70.3	32.4	21.6
Mountain/Pacific	42.9	60.3	33.3	30.2	43.3	61.7	33.3	28.3
SIZE								
0–19,999	52.6	52.6	37.2	28.2	47.5	50.8	42.6	32.8
20,000–49,999	53.5	55.8	36.0	31.4	54.2	57.8	34.9	30.1
50,000–99,999	67.7	56.5	17.7	17.7	68.3	55.0	18.3	18.3
100,000 +	61.1	57.4	25.9	20.4	62.3	56.6	26.4	20.8
PLAN AGE								
2–3	60.9	56.5	21.7	17.4	—	—	—	—
4–7	50.4	62.0	41.1	31.8	50.4	62.0	41.1	31.8
8–15	62.2	46.7	20.0	20.0	62.2	46.7	20.0	20.0
16 +	71.1	52.6	23.7	21.1	71.1	52.6	23.7	21.1
TAX STATUS								
Nonprofit	74.1	46.3	25.0	19.4	72.5	47.1	24.5	20.6
For-profit	47.7	61.0	33.7	29.1	47.7	60.6	35.5	29.7
QUALIFICATION STATUS								
Federally qualified	64.4	60.5	27.7	12.4	64.7	60.6	27.6	12.9
Non-qualified	46.6	46.6	35.0	47.6	43.7	44.8	37.9	51.7
OWNERSHIP								
Blue Cross/Blue Shield	61.2	51.0	34.7	28.6	58.7	54.3	34.8	30.4
Other Insurer	48.1	75.0	28.8	36.5	50.0	74.0	30.0	36.0
National Chain	41.9	61.3	19.4	12.9	40.0	60.0	20.0	13.3
Independent	74.3	40.5	27.0	20.3	73.5	39.7	29.4	20.6
Provider-sponsored	49.3	56.5	37.7	27.5	50.0	55.2	37.9	29.3
Other	100.0	60.0	20.0	0.0	100.0	60.0	20.0	0.0

Notes:

1. Analysis based only on plans responding to all four of the Yes/No items. Slightly different estimates are obtained when all plans completing each of the items are used. For plans greater than 3 years old, 59% of all responding plans used standard community rating, 58% community rating by class (CRC), 33% adjusted community rating (ACR) and 28% used experience rating.
2. For plans ≤ 3 years, 60.9% made some use of standard community rating, 56.5% used CRC, 21.7% used ACR and 17.4% used experience rating (n = 23).
3. Refers to any method of rating based on group experience other than ACR, which is a rating method defined by the federal HMO Act.

Source: GHAA's Annual HMO Industry Survey

Table 15
Percent of HMOs Using Various Patterns of Rating Methodologies in Private Employer Contracts, by Selected Plan Characteristics and Plan Age, 1989[1]

	Community Rating Only[2]				Other	
		Plan-Wide Only[3]				
Selected Characteristics	% Plans	% Plans	% Std. Only	% Some ACR[4]	% Some Exp.	% Only Exp.
All Plans (n = 280)	74.6	55.7	24.3	18.9	25.[illegible]	5.7
MODEL						
Staff	93.3	66.7	33.3	26.7	6.7	—
Group	91.8	77.6	38.8	14.3	8.2	—
Network	76.5	61.8	17.6	14.7	23.5	2.9
IPA	65.9	46.1	19.8	19.8	34.1	9.0
REGION						
New England	89.5	73.7	31.6	15.8	10.5	—
Mid-Atlantic	100.0	81.8	72.7	18.2	—	—
South Atlantic	80.9	59.6	19.1	21.3	19.1	4.3
East Central	59.0	43.6	20.5	15.4	41.0	9.0
West Central	77.5	57.5	7.5	20.0	22.5	2.5
Mountain/Pacific	69.8	47.6	15.9	22.2	30.2	9.5
SIZE						
0–19,999	71.8	47.4	20.5	24.4	28.2	9.0
20,000–49,999	68.6	47.7	17.4	20.9	31.4	7.0
50,000–99,999	82.3	71.0	32.3	11.3	17.7	3.2
100,000 +	79.6	63.0	31.5	16.7	20.4	1.9
PLAN AGE						
2–3	82.6	69.6	21.7	13.0	17.4	4.3
4–7	68.2	45.7	17.1	22.5	31.8	3.1
8–15	80.0	64.4	33.3	15.6	20.0	7.8
16 +	78.9	60.5	28.9	18.4	21.1	10.5
TAX STATUS						
Nonprofit	80.6	63.9	36.1	16.7	19.4	5.6
For-profit	70.9	50.6	16.9	20.3	29.1	5.8
QUALIFICATION STATUS						
Federally qualified	87.6	66.7	24.9	20.9	12.4	1.1
Non-qualified	52.4	36.9	23.3	15.5	47.6	13.6
OWNERSHIP						
Blue Cross/Blue Shield	71.4	51.0	30.6	20.4	28.6	4.1
Other Insurer	63.5	46.2	3.8	17.3	36.5	11.5
National Chain	87.1	67.7	25.8	19.4	12.9	3.2
Independent	79.7	60.8	33.8	18.9	20.3	6.8
Provider-sponsored	72.5	53.6	23.2	18.8	27.5	2.9
Other	100.0	80.0	40.0	20.0	—	—

Table 15 (continued)
Percent of HMOs Using Various Patterns of Rating Methodologies in Private Employer Contracts, by Selected Plan Characteristics and Plan Age, 1989[1]

Selected Characteristics	Community Rating Only[2]				Other	
		Plan-Wide Only[3]				
	% Plans	% Plans	% Std. Only	% Some ACR[4]	% Some Exp.[5]	% Only Exp.
All Plans > 3 Years (n = 257)	73.9	54.5	24.5	19.5	26.1	5.8
MODEL						
Staff	93.1	65.5	31.0	27.6	6.9	—
Group	91.7	77.1	37.5	14.6	8.3	—
Network	74.2	58.1	16.1	16.1	25.8	3.2
IPA	64.4	44.3	20.8	20.1	35.6	9.4
REGION						
New England	87.5	75.0	31.3	12.5	12.5	—
Mid-Atlantic	100.0	83.3	76.7	16.7	—	—
South Atlantic	79.5	53.8	17.9	25.6	20.5	5.1
East Central	57.3	42.7	21.3	14.7	42.7	9.3
West Central	78.4	56.8	8.1	21.6	21.6	—
Mountain/Pacific	71.7	48.3	15.0	23.3	28.3	10.0
SIZE						
0–19,999	67.2	39.3	18.0	27.9	32.8	11.5
20,000–49,999	69.9	49.4	18.1	20.5	30.1	6.0
50,000–99,999	81.7	70.0	33.3	11.7	18.3	3.3
100,000 +	79.2	62.3	32.1	17.0	20.8	1.9
PLAN AGE						
4–7	68.2	45.7	17.1	22.5	31.8	3.1
8–15	80.0	64.4	33.3	15.6	20.0	7.8
16 +	78.9	60.5	28.9	18.4	21.1	10.5
TAX STATUS						
Nonprofit	79.4	63.7	36.3	15.7	20.6	5.9
For-profit	70.3	48.4	16.8	21.9	29.7	5.8
QUALIFICATION STATUS						
Federally qualified	87.1	66.5	25.3	20.6	12.9	1.2
Non-qualified	48.3	31.0	23.0	17.2	51.7	14.9
OWNERSHIP						
Blue Cross/Blue Shield	69.6	50.0	28.3	19.6	30.4	4.3
Other Insurer	64.0	46.0	4.0	18.0	36.0	12.0
National Chain	86.7	66.7	26.7	20.0	13.3	3.3
Independent	79.4	58.8	33.8	20.6	20.6	5.9
Provider-sponsored	70.7	51.7	25.9	19.0	29.3	3.4
Other	100.0	80.0	40.0	20.0	—	—
Plans ≤ 3 Years (n = 23)	82.6	69.6	21.7	13.0	17.4	4.3

Notes:

1. Based only on plans completing all 4 of the Yes/No items. Although the question was specific to private employer groups it is possible that some plans responded based on all group contracts or all business.
2. Includes plans which use only standard community rating, community rating by class or adjusted community rating (ACR), which are rating methods defined by the federal HMO Act.
3. Includes plans using only standard community rating or community rating by class.
4. No plans used adjusted community rating exclusively.
5. Refers to plans which make some use of an experience rating technique other than adjusted community rating. For all plans using experience rating, 37.5% use retrospective adjustment. For plans > 3 years using experience rating, 38.2% use retrospective adjustment.

* Data not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey.

Table 16
Mean Percentage of Total Enrollees Covered Under Various Rating Systems in HMOs by Selected Plan Characteristics and Plan Age, 1989

	All Plans (n = 310)				Plans > 3 Years (n = 280)[1]			
Selected Characteristics	**Std. Comm. Rating**	**CRC**	**ACR**	**Exper. Rating**	**Std. Comm. Rating**	**CRC**	**ACR**	**Exper. Rating**
TOTAL	39.3	35.0	10.6	15.0	39.4	34.6	10.6	15.4
MODEL								
Staff	60.3	22.0	8.2	9.5	59.3	22.6	8.4	9.7
Group	52.6	33.5	6.5	7.4	52.8	34.8	6.8	5.6
Network	34.3	44.4	8.9	12.4	32.5	46.6	7.0	13.9
IPA	32.2	36.3	12.6	18.9	32.1	34.9	13.0	20.0
REGION								
New England	61.8	25.8	8.1	4.3	65.4	24.7	5.0	4.9
Mid-Atlantic	89.1	3.4	7.4	0.0	89.1	3.8	7.1	—
South Atlantic	39.5	37.3	12.3	10.9	39.8	34.8	14.6	10.7
East Central	32.9	30.4	10.7	26.0	32.4	30.1	10.5	27.0
West Central	17.0	57.0	13.3	12.6	18.5	55.5	14.7	11.4
Mountain/Pacific	27.3	44.4	10.0	18.3	27.4	45.6	8.9	18.0
SIZE								
0–19,999	33.7	30.5	15.8	20.0	29.7	28.5	17.1	24.7
20,000–49,999	33.5	32.6	14.2	19.7	34.0	33.7	14.1	18.2
50,000–99,999	48.3	39.9	4.0	7.8	49.6	38.2	4.1	8.1
100,000 +	46.3	39.6	5.2	8.9	47.0	38.7	5.3	9.0
PLAN AGE								
2–3	38.9	39.4	10.7	11.0	—	—	—	—
4–7	27.9	40.3	15.3	16.6	27.9	40.3	15.3	16.6
8–15	50.4	29.9	6.7	13.0	50.4	29.9	6.7	13.0
16 +	50.2	27.5	5.0	17.3	50.2	27.5	5.0	17.3
TAX STATUS								
Nonprofit	52.5	26.7	6.9	13.9	52.2	27.3	6.6	13.9
For-profit	30.9	40.3	13.0	15.7	30.7	39.5	13.3	16.4
QUALIFICATION STATUS								
Federally qualified	45.1	42.3	7.4	5.2	45.8	41.7	7.1	5.5
Non-qualified	30.0	23.1	15.9	31.0	27.7	21.6	17.1	33.7
OWNERSHIP								
Blue Cross/Blue Shield	39.6	31.1	12.1	17.2	37.6	31.6	12.3	18.6
Other Insurer	23.5	48.5	8.4	19.6	24.4	46.4	8.8	20.4
National Chain	33.6	52.9	6.6	6.9	30.7	54.9	7.0	7.3
Independent	54.9	21.1	8.7	15.3	54.4	21.0	9.3	15.2
Provider-sponsored	34.2	38.2	14.3	13.3	36.9	36.7	13.4	13.0
Other	50.0	16.0	14.0	20.0	50.0	16.0	14.0	20.0

Notes:

1. For plans ≤ 3 years an average of 38.9% of enrollment was under standard community rating, 39.4% under CRC, 10.7% under ACR and 11.0% under experience rating (n = 27).

* Data not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey.

Table 17
Percent of Plans Reporting Diversification Activities by Type of Activity and Selected Plan Characteristics, by Plan Age, 1989

Selected Characteristics	% With Any Divers.[1] (n = 322)	% With Any Specified Divers.[2] (n = 303)	Diversification Type				
			PPO Option (n = 320)	Indemnity Option (n = 314)	Open-ended (n = 318)	Exclusive Multiple Option (n = 307)	Self Insured (n = 309)
All Plans	41.9	33.3	22.8	18.2	15.4	10.7	20.1
MODEL							
Staff	43.9	15.4	11.9	9.8	16.3	7.7	10.0
Group	37.3	19.2	11.5	11.5	9.6	7.7	9.6
Network	36.6	34.1	14.3	18.6	7.0	7.0	12.2
IPA	43.9	41.5	30.4	21.9	18.9	13.3	27.3
REGION							
New England	29.2	15.0	9.5	9.5	9.1	5.0	15.0
Mid-Atlantic	20.5	8.1	2.7	—	2.6	—	2.7
South Atlantic	42.9	29.1	15.8	8.9	14.0	10.9	18.2
East Central	43.0	32.1	22.7	17.4	10.5	7.1	20.7
West Central	41.9	42.1	31.8	36.6	28.6	15.8	24.4
Mountain/Pacific	55.4	52.2	37.0	27.8	23.3	19.7	29.0
SIZE							
0–19,999	29.0	31.1	18.9	19.1	13.5	7.6	22.0
20,000–49,999	53.2	38.8	29.8	26.4	19.8	13.8	22.7
50,000–99,999	37.9	25.4	17.6	7.5	11.9	13.4	11.8
100,000 +	50.0	37.7	23.8	16.1	15.6	8.2	22.6
PLAN AGE							
2–3	24.1	24.0	22.2	11.5	3.8	7.7	15.4
4–7	45.6	39.9	27.4	21.7	20.8	15.7	24.1
8–15	41.6	27.6	18.4	14.7	9.8	7.1	17.2
16 +	42.2	31.0	18.2	18.6	17.4	4.8	16.3
TAX STATUS							
Nonprofit	31.0	20.6	12.4	6.2	9.2	2.3	11.0
For-profit	49.2	42.4	29.8	26.5	19.8	16.8	26.4
QUALIFICATION STATUS							
Federally qualified	48.0	33.0	22.7	18.0	18.3	13.2	17.3
Non-qualified	32.5	33.9	23.0	18.3	10.7	6.8	24.6
OWNERSHIP							
Blue Cross/Blue Shield	26.9	25.9	11.1	7.4	10.9	7.4	9.3
Other Insurer	76.8	70.6	51.7	60.7	45.6	38.5	49.1
National Chain	27.8	27.8	11.1	13.5	10.8	5.4	8.3
Independent	38.6	20.7	15.5	13.1	4.8	3.7	13.1
Provider-sponsored	36.3	31.9	24.1	4.0	7.9	5.4	23.0
Other	50.0	12.5	11.1	0.0	30.0	0.0	0.0

Table 17 (continued)
Percent of Plans Reporting Diversification Activities by Type of Activity and Selected Plan Characteristics, by Plan Age, 1989

Selected Characteristics	% With Any Divers.[1] (n = 293)	% With Any Specified Divers.[2] (n = 278)	Diversification Type				
			PPO Option (n = 293)	Indemnity Option (n = 299)	Open-ended (n = 292)	Exclusive Multiple Option (n = 281)	Self Insured (n = 283)
Plans > 3 Years[3]	43.7	34.2	22.9	18.8	16.4	11.0	20.5
MODEL							
Staff	43.6	13.5	10.0	10.3	17.1	8.1	10.5
Group	38.8	20.0	12.0	12.0	10.0	8.0	10.0
Network	41.7	36.8	15.8	20.5	7.7	7.7	13.2
IPA	45.6	43.1	30.9	22.5	20.4	13.5	28.0
REGION							
New England	28.6	11.1	10.5	10.5	10.0	5.6	11.1
Mid-Atlantic	20.6	9.1	3.0	—	2.9	—	3.0
South Atlantic	51.1	32.6	16.7	8.5	16.7	10.9	21.7
East Central	45.1	33.8	23.8	18.3	11.0	7.4	21.7
West Central	41.0	42.9	30.0	36.8	30.8	17.1	21.6
Mountain/Pacific	54.3	50.0	34.8	27.9	23.2	19.4	28.8
SIZE							
0–19,999	31.2	32.9	18.9	20.5	16.0	7.0	23.9
20,000–49,999	52.7	38.6	28.6	27.0	20.2	14.1	22.4
50,000–99,999	39.1	26.2	18.2	7.7	12.3	13.8	12.1
100,000 +	50.8	38.3	24.2	16.4	15.9	8.3	23.0
PLAN AGE							
4–7	45.6	39.9	27.4	21.7	20.8	15.7	24.1
8–15	41.6	27.6	18.4	14.7	9.8	7.1	17.2
16 +	42.2	31.0	18.2	18.6	17.4	4.8	16.3
TAX STATUS							
Nonprofit	32.5	22.2	13.3	6.7	9.8	2.5	11.9
For-profit	51.4	42.9	29.5	27.4	21.2	17.3	26.7
QUALIFICATION STATUS							
Federally qualified	49.7	34.4	23.7	18.8	19.0	13.7	18.0
Non-qualified	33.0	33.7	21.4	18.6	11.7	6.1	25.0
OWNERSHIP							
Blue Cross/Blue Shield	27.1	28.0	12.0	8.0	11.8	8.0	10.0
Other Insurer	77.8	69.4	50.0	59.3	45.5	36.0	49.0
National Chain	29.4	29.4	11.8	14.3	11.4	5.7	8.8
Independent	40.0	21.1	14.3	14.1	5.2	3.9	13.0
Provider-sponsored	38.8	32.8	25.4	3.2	9.4	6.5	23.8
Other	50.0	12.5	11.1	0.0	30.0	0.0	0.0

Notes:

1. Based on asking plans "Does your plan offer additional benefit options or 'lines of business' in your operations other than the traditional HMO comprehensive health benefits coverage?"
2. Based on responding yes to at least one of listed types of diversification.
3. For plans ≤ 3 years, 24.1% of respondents had diversified (n = 29). Twenty-four percent offered at least one of the specified services with 20% offering a PPO option, 4.0% an open-ended option, 12.0% an indemnity option, 8.0% exclusive multiple options, and 12.0% offering an employer self-insured option (n = 25).

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

APPENDICES

Table A-1
Response Rates to GHAA's Fourth Annual Industry Surv[illegible] by Selected Plan Characteristics, 1988–1989[1]

Selected Characteristics	Number Surveyed[2]	Number Responding	Response Rate (%)			Total Enrollment	Respondent Enrollment	Enrollment Response Rate % Response		
			All Plans	> 3	≤ 3			All plans	> 3	≤ 3
TOTAL	570	332	58.2	62.7	48.0	32,277,873	23,732,245	73.5	75.2	55.1
MODEL[3]										
Staff	66	41	62.1	62.7	57.1	4,213,807	3,395,557	80.6	81.3	34.1
Group	78	55	70.5	72.5	55.6	9,515,926	8,791,832	92.4	92.6	79.7
Network	71	44	62.0	67.3	50.0	4,170,766	3,038,976	72.9	72.3	77.8
IPA	355	192	54.1	58.6	46.7	14,377,374	8,505,880	59.2	60.8	49.8
SIZE										
0–19,999	240	113	47.1	48.2	46.1	2,356,882	1,150,792	48.8	45.9	52.3
20,000–49,999	161	93	57.8	60.2	50.0	5,001,832	2,952,736	59.0	61.7	49.3
50,000–99,999	97	69	71.1	71.4	66.7	6,833,349	4,926,827	72.1	72.9	59.3
100,000 +	72	57	79.2	78.9	100.0	18,085,810	14,701,890	81.3	81.1	100.0
PLAN AGE										
2–3	173	83	48.0	—	48.0	2,708,029	1,492,074	55.1	—	55.1
4–7	213	116	54.5	54.5	—	7,811,327	4,932,535	63.1	63.1	—
8–15	130	95	73.1	73.1	—	11,110,617	7,913,289	71.2	71.2	—
16 +	54	38	70.4	70.4	—	10,647,900	9,394,347	88.2	88.2	—
GHAA MEMBERS										
Member	253	177	70.0	78.4	44.4	19,636,694	17,513,706	89.2	91.2	50.9
Non-member	317	155	48.9	48.3	50.0	12,641,179	6,218,539	49.2	47.9	57.4
TAX STATUS										
Nonprofit	190	134	70.5	73.1	58.8	17,081,730	14,654,533	85.8	86.3	71.8
For-profit	380	198	52.1	56.0	45.3	15,196,143	9,077,712	59.7	61.2	50.6
QUALIFICATION STATUS										
Federally qualified	320	201	62.8	64.7	52.9	24,917,091	19,002,401	76.3	25.3	97.4
Non-qualified	250	131	52.4	58.6	45.9	7,360,782	4,729,844	64.3	91.6	79.2

Notes:

1. This analysis is based on information provided by plans for *GHAA's National Directory of HMOs*, 1989 ed. Enrollment and plan characteristics are as of December 31, 1988.
2. Plans surveyed include all HMOs operational as of January 1, 1989.
3. Represents predominate model type as designated by plan.

Source: Data from *GHAA's National Directory of HMOs*, 1989 ed.

Respondents to the GHAA Annual HMO Industry Survey

AV-MED Health Plan (Miami, FL)
AllHealth (Madison, WI)
AmeriMed (Burbank, CA)
AmeriPlan Health Services, Inc. (Jacksonville, FL)
Arizona Health Plan, Inc./Phoenix IPA (Phoenix, AZ)
Arizona Physicians IPA, Inc. (Phoenix, AZ)
Baptist Medical System HMO, Inc., (Little Rock, AR)
Bay Pacific Health Plan (San Bruno, CA)
Bay State Health Care, Inc. (Cambridge, MA)
Blue Care Network—Health Central (Lansing, MI)
Blue Care Network of East Michigan (Saginaw, MI)
Blue Care Network of South East Michigan (Southfield, MI)
Blue Care Network, Great Lakes (Grand Rapids, MI)
BlueLincs HMO (Tulsa, OK)
Bridgeway Plan for Health (San Francisco, CA)
Bronx Health Plan (Bronx, NY)
CIGNA Health Network, Inc. (Dallas, TX)
CIGNA Healthplan Mid-Atlantic (Columbia, MD)
CIGNA Healthplan of Arizona, Inc.—Tucson (Tucson, AZ)
CIGNA Healthplan of Arizona, Inc.—Phoenix (Phoenix, AZ)
CIGNA Healthplan of CA.—San Diego (San Diego, CA)
CIGNA Healthplan of California, Inc. (Glendale, CA)
CIGNA Healthplan of Colorado, Inc. (Denver, CO)
CIGNA Healthplan of Florida, Inc.—Maitland (Maitland, FL)
CIGNA Healthplan of Florida, Inc.—Tampa (Tampa, FL)
CIGNA Healthplan of Georgia, Inc. (Atlanta, GA)
CIGNA Healthplan of Illinois (Des Plaines, IL)
CIGNA Healthplan of Kansas City (Kansas City, MO)
CIGNA Healthplan of Louisiana, Inc. (Baton Rouge, LA)
CIGNA Healthplan of Massachusetts, Inc. (Springfield, MA)
CIGNA Healthplan of North Louisiana (Shreveport, LA)
CIGNA Healthplan of Northern California (Oakland, CA)
CIGNA Healthplan of Ohio, Inc. (Cleveland, OH)
CIGNA Healthplan of Ohio, Inc.—Columbus (Columbus, OH)
CIGNA Healthplan of South Florida (Miami Lakes, FL)
CIGNA Healthplan of St. Louis (Clayton, MO)
CIGNA Healthplan of Texas (Irving, TX)
CIGNA Healthplan of Washington, Inc. (Seattle, WA)
CaliforniaCare (Woodland Hills, CA)
Capital Area Community Health Plan, Inc. (Latham, NY)
Capital District Physicians' Health Plan (Albany, NY)
Capitol Health Care (Salem, OR)
Care Choices Health Plans/Mercy Alternative (Farmington Hill, MI)
Care Plan HMO (Fargo, ND)
CareAmerica Health Plan, Inc. (Chatsworth, CA)
CareChoice—Chattanooga (Chattanooga, TN)
Carlecare, Inc. (Urbana, IL)
Central Massachusetts Health Care, Inc. (Worcester, MA)

Central Medical Health Plan (Pittsburgh, PA)
Central Minnesota Group Health Plan (St. Cloud, MN)
Chicago HMO, Ltd. (Chicago, IL)
ChoiceCare (Cincinnati, OH)
ChoiceCare—Long Island (Uniondale, NY)
ChoiceCare of Kentucky (Crestview Hills, KY)
Clinicare (Rockford, IL)
CoMED HMO—A Total Health Company (Denville, NJ)
Columbia Medical Plan, Inc. (Columbia, MD)
Community Blue, HMO of Blue Cross of Western New York, Inc. (Buffalo, NY)
Community Choice Health Plan, Inc. (Marshfield, WI)
Community Health Care Plan (New Haven, CT)
Community Health Group (Chula Vista, CA)
Community Health Network (Baton Rouge, LA)
Companion Health Care Corporation (Columbia, SC)
Compass Health Care Plans (Chicago, IL)
Compcare Health Services Insurance Corporation (Milwaukee, WI)
Complete Health, Inc. (Birmingham, AL)
Comprecare (Birmingham, AL)
Comprecare, Inc. (Aurora, CO)
Comprehensive Health Services, Inc. (Detroit, MI)
ConnectiCare, Inc. (Farmington, CT)
Constitution Health Network (Meriden, CT)
Contra Costa Health Plan (Martinez, CA)
DAKOTACARE (Sioux Falls, SD)
DeanCare HMO (Middleton, WI)
Delaware Valley HMO (Concordville, PA)
Delmarva Health Care Plan, Inc. (Easton, MD)
Deseret Healthcare (Salt Lake City, UT)
EQUICOR Health Plan (Brentwood, TN)
EQUICOR Health Plan Of Utah, Inc. (Salt Lake City, UT)
EQUICOR Health Plan of Florida Inc. (St. Petersburg, FL)
EQUICOR Health Plan, Inc. (Glen Allen, VA)
EQUICOR Health Plan, Inc. (Wichita, KS)
EQUICOR Health Plan, Inc.—Statewide Network (Phoenix, AZ)
Eau Claire Health Protection Plan (Wausau, WI)
Educators Health Care, Inc. (Murray, UT)
Empire Blue Cross & Blue Shield Healthnet (New York, NY)
Employees Choice Health Option (Salt Lake City, UT)
Employer's Health Care Plan (Green Bay, WI)
FHP, Inc. (Fountain Valley, CA)
FIRSTSOURCE, Inc. (Albuquerque, NM)
Fallon Community Health Plan (West Boylston, MA)
Family Health Plan (Toledo, OH)
Family Health Plan Cooperative (Elm Grove, WI)
Family Health Plan Corporation (Newton, KS)
Family Health Plan, Inc. (Miami Lakes, FL)
First Plan HMO (Two Harbors, MN)
Florida Health Care Plan, Inc. (Daytona Beach, FL)
Foundation Health Plan (Gold River, CA)
Foundation Health Plan (Endwell, NY)
Foundation Health Plan of New Mexico (Albuquerque, NM)
Free State Health Plan, Inc. (Cockeysville, MD)
Freedom Health Care (Wayne, PA)
Geisinger Health Plan (Danville, PA)

George Washington University Health Plan, Inc. (Washington, DC)
Grand Valley Health Plan (Grand Rapids, MI)
Greater Wisconsin Rapids Health Protection Plan (Wausau, WI)
Green Bay Health Protection Plan (Wausau, WI)
Group Health (Rochester, NY)
Group Health Association, Inc. (Washington, DC)
Group Health Cooperative of Eau Claire (Eau Claire, WI)
Group Health Cooperative of Puget Sound (Seattle, WA)
Group Health Cooperative of South Central Wisconsin (Madison, WI)
Group Health Northwest (Spokane, WA)
Group Health Plan, Inc. (St. Louis, MO)
Group Health, Inc. (Minneapolis, MN)
Guam Memorial Health Plan (Agana, GU)
Gulf South Health Plans, Inc. (Baton Rouge, LA)
HEALS, Personal Care Physician Health Plan (Emeryville, CA)
HEALTH OPTIONS, INC. (Jacksonville, FL)
HIP Network of Florida, Inc. (Ft. Lauderdale, FL)
HIP of New Jersey (Robbinsville, NJ)
HMO America—Indiana, Inc. (Chicago, IL)
HMO Colorado (Denver, CO)
HMO Health Ohio/BC & BS of Ohio (Cleveland, OH)
HMO Kansas, Inc. (Topeka, KS)
HMO Kentucky, Inc. (Louisville, KY)
HMO Nebraska, Inc. (Omaha, NE)
HMO Rhode Island (Providence, RI)
HMO Virginia, Inc. (Richmond, VA)
HMO Washington (Seattle, WA)
HMO Wyoming (Cheyenne, WY)
HMO of North Carolina, Inc. (Durham, NC)
HMO of Northeastern PA (Wilkes-Barre, PA)
HMO of Wisconsin Insurance Corporation (Prairie du Sac, WI)
Harris Health Plan (Fort Worth, TX)
Harvard Community Health Plan (Brookline Vil., MA)
Harvard University Group Health Plan (Cambridge, MA)
Hawaii Medical Services Association/Community Health Program (Honolulu, HI)
Health Alliance Plan (Lakeland, FL)
Health Alliance Plan of Michigan (Detroit, MI)
Health Care Plan, Inc. (Buffalo, NY)
Health First, Inc. (Atlanta, GA)
Health Guard (Bellaire, OH)
Health Insurance Plan of Greater New York (New York, NY)
Health Maintenance Group Birmingham Division (Birmingham, AL)
Health Maintenance Plan (Cincinnati, OH)
Health Maintenance of Indiana (Indianapolis, IN)
Health Net (Van Nuys, CA)
Health Network of Colorado Springs, Inc. (Colorado Spring, CO)
Health New England (Springfield, MA)
Health One (Columbus, OH)
Health Plan Hawaii (Honolulu, HI)
Health Plan of Central Illinois, Inc. (Peoria, IL)
Health Plan of Nevada, Inc. (Las Vegas, NV)
Health Plan of the Redwoods (Santa Rosa, CA)
Health Plan of the Upper Ohio Valley, Inc. (St. Clairsville, OH)
Health Power of Columbus/Family HealthNet of Ohio (Columbus, OH)
Health Power of Dayton, Inc. (Columbus, OH)

Health Services Medical Corp. (Baldwinsville, NY)
HealthAmerica Corporation of Pennsylvania (Pittsburgh, PA)
HealthAmerica of Pennsylvania, Inc. (Camp Hill, PA)
HealthCare Corporation of the Mid-Atlantic (Baltimore, MD)
HealthCare, Inc. (North Haven, CT)
HealthChicago, Inc. (Lisle, IL)
HealthGuard Services, Inc.—SelectCare (Eugene, OR)
HealthGuard of Lancaster Inc. (Lancaster, PA)
HealthKeepers of Virginia, Inc. (Richmond, VA)
HealthOhio, Inc. (Marion, OH)
HealthPlan Southeast (Tallahassee, FL)
HealthPlus (Seattle, WA)
HealthPlus of Michigan (Flint, MI)
HealthPlus, Inc. (Riverdale, MD)
HealthWays, Inc. (Iselin, NJ)
HealthWise (Lexington, KY)
Healthcare Delaware (Wilmington, DE)
Healthsource Maine (Yarmouth, ME)
Healthsource New Hampshire (Concord, NH)
Healthsource South Carolina (Charleston, SC)
Heart of America HMO (Rugby, ND)
Heritage Health Plan of South Florida (Miami, FL)
Heritage National Healthplan, Inc. (Davenport, IA)
Holzer Health Plan (Columbus, OH)
HomeTown Hospital Health Plan (Massillon, OH)
Hospital Choice Health Plan (Worthington, OH)
Hospital Sisters HMO Corp. of Illinois/Unity Health Plan (Springfield, IL)
Humana Health Care Plan, Inc. (Lexington, KY)
Humana Health Care Plans (Louisville, KY)
Humana Health Care Plans (Miami, FL)
Humana Health Care Plans (Orlando, FL)
Humana Health Care Plans (Ormond Beach, FL)
Humana Health Care Plans (Tampa, FL)
Humana Health Plan (Phoenix, AZ)
Humana Health Plan of TX, Inc. (Corpus Christi, TX)
Humana Health Plan of TX, Inc. (San Antonio, TX)
IHC Care, Inc. (Salt Lake City, UT)
Illinois Masonic Community Health Plan (Chicago, IL)
Independent Health Association (Buffalo, NY)
Independent Health of Pennsylvania (Erie, PA)
Independent Prepaid Health Plan (Baldwinsville, NY)
InterValley Health Plan (Pomona, CA)
Intergroup Prepaid Health Services of Arizona, Inc. (Tucson, AZ)
JMH Health Plan (Miami, FL)
John Hancock HealthPlan of Pennsylvania, Inc. (Philadelphia, PA)
Johns Hopkins Health Plan (Baltimore, MD)
Kaiser Foundation Health Plan of Colorado, Inc. (Denver, CO)
Kaiser Foundation Health Plan of Georgia, Inc. (Atlanta, GA)
Kaiser Foundation Health Plan of Kansas City, Inc. (Shawnee Mission, KS)
Kaiser Foundation Health Plan of Mid-Atlantic States, Inc. (Washington, DC)
Kaiser Foundation Health Plan of North Carolina, Inc. (Raleigh, NC)
Kaiser Foundation Health Plan of Ohio, Inc. (Cleveland, OH)
Kaiser Foundation Health Plan of Texas, Inc. (Dallas, TX)
Kaiser Foundation Health Plan of the Northwest, Inc. (Portland, OR)
Kaiser Foundation Health Plan, Inc.—Hawaii Region (Honolulu, HI)

Kaiser Foundation Health Plan, Inc.—N. California Region (Oakland, CA)
Kaiser Foundation Health Plan, Inc.—Southern CA Region (Pasadena, CA)
Kaiser Foundation Health Plan, Inc.—Northeast Region (Hartford, CT)
Key Care Health Plans (Key West, FL)
Keystone Health Plan Central (Camp Hill, PA)
Keystone Health Plan East, Inc. (Bala-Cynwyd, PA)
Keystone Health Plan West, Inc. (Pittsburgh, PA)
Lake Shore HMO (Holland, MI)
Lake Winnebago Health Protection Plan (Wausau, WI)
Licking Memorial Hospital Health Plan (Newark, OH)
Lincoln National Health Plan (Bethesda, MD)
Loma Linda Affiliated Health Plan (Loma Linda, CA)
Lovelace Health Plan, Inc. (Albuquerque, NM)
M.D. Health Plan (New Haven, CT)
M.D. Individual Practice Association, Inc. (Rockville, MD)
MIT Health Plan (Cambridge, MA)
Magna Care Health Plan (Cincinnati, OH)
Matthew Thornton Health Plan (Nashua, NH)
Medical Associates Health Plan, Inc. (Dubuque, IA)
Medical Center Health Plan (Pensacola, FL)
Medical Value Plan (Toledo, OH)
Medical West Community Health Plan, Inc. (Framingham, MA)
Medigroup, Inc. (Cranford, NJ)
Mercy Health Plan (Philadelphia, PA)
Michael Reese Health Plan,Inc. (Chicago, IL)
Mid-Hudson Health Plan, Inc. (Kingston, NY)
Mobile Health Plan (Mobile, AL)
Mohawk Valley Physicians Health Plan (Schenectady, NY)
Mt. Sinai Health Maintenance Organization (Miami Beach, FL)
NWNL Health Network, Inc. (St. Paul, MN)
National Med (Modesto, CA)
Neighborhood Health Plan Inc. (Dorchester, MA)
Network Health Plan of Wisconsin, Inc. (Appleton, WI)
North Central Health Protection Plan (Wausau, WI)
OMNICARE/The HMO (Vineland, NJ)
Ochsner Health Plan of New Orleans (Metairie, LA)
OmniCare Health Plan (Detroit, MI)
Optima Health Plan (Norfolk, VA)
PARTNERS Health Plan of Alabama, Inc. (Birmingham, AL)
PARTNERS National Health Plan of Georgia (Atlanta, GA)
PARTNERS Health Plan of the Mid-Atlantic (Fairfax, VA)
PARTNERS National Health Plan of North Carolina, Inc. (Winston-Salem, NC)
PARTNERS in Health Maintenance of Arizona (Tucson, AZ)
PacifiCare of California (Cypress, CA)
PacifiCare of Oklahoma—Tulsa (Tulsa, OK)
PacifiCare of Oregon and Washington (Tigard, OR)
PacifiCare of Texas, Inc. (San Antonio, TX)
Pacific Health (Seattle, WA)
Patient Care of America (Miami, FL)
Patient's Choice, Inc. (Syracuse, NY)
Peak Health Plan—Colorado Springs Region (Colorado Springs, CO)
Peak Health Plan—Denver (Denver, CO)
Peak Health Plan of Idaho (Boise, ID)
Personal Care Plan of North Carolina, Inc. (Durham, NC)
Personal Physician Care of Ohio, Inc. (Cleveland, OH)

PersonalCare Insurance of Illinois, Inc. (Champaign, IL)
Physicians Health Network (Evansville, IN)
Physicians Health Plan of Mid-Michigan (Lansing, MI)
Physicians Health Plan of North Carolina, Inc. (Greensboro, NC)
Physicians Health Plan of Ohio, Inc. (Columbus, OH)
Physicians Health Plan of South Carolina (Columbia, SC)
Physicians Health Plan of Utah (Salt Lake City, UT)
Physicians Health Service of Connecticut, Inc. (Trumbull, CT)
Physicians Health Services HMO, Inc. (Evansville, IN)
Physicians Health Services of New York, Inc. (White Plains, NY)
Physicians Plus HMO (Madison, WI)
Pilgrim Health Care, Inc. (Norwell, MA)
Prime Health Kansas City, Inc. (Kansas City, MO)
PrimeCare Health Plan of Wisconsin (Milwaukee, WI)
Principal HealthCare of Nebraska, Inc. (Omaha, NE)
Prudential Health Care Plan, Inc.—PruCare of Atlanta (Atlanta, GA)
Prudential Health Care Plan, Inc.—PruCare of Charlotte (Charlotte, NC)
Prudential Health Care Plan, Inc.—PruCare of Memphis (Memphis, TN)
Prudential Health Care Plan, Inc.—PruCare of Nashville (Nashville, TN)
Prudential Health Care Plan, Inc.—PruCare of Orlando (Maitland, FL)
Prudential Health Care Plan, Inc.—PruCare of Richmond (Richmond, VA)
Prudential Health Care Plan, Inc.—PruCare of Tampa Bay (Tampa, FL)
Prudential Health Care System—PruCare of Jacksonville (Jacksonville, FL)
Q Care (Madison, WI)
Rhode Island Group Health Association, Inc. (RIGHA) (Providence, RI)
Rio Grande HMO, Inc. (El Paso, TX)
Rochester Area HMO, Inc. (Rochester, NY)
Rocky Mountain HMO (Grand Junction, CO)
Rutgers Community Health Plan, Inc. (Somerset, NJ)
Samaritan Health Plan (Milwaukee, WI)
Samaritan Health Plan (Phoenix, AZ)
Sanus Health Plan, Inc. (St. Louis, MO)
Sanus Texas Health Plan, Inc.—Dallas and Fort Worth (Irving, TX)
Scan Health Plan (Long Beach, CA)
Scott and White Health Plan (Temple, TX)
Security Health Plan of WI (Marshfield, WI)
SelectCare MedExtend, Inc. (Troy, MI)
Share Health Plan of Colorado (Colorado Springs, CO)
Share Health Plan of Illinois, Inc. (Itasca, IL)
Share Health Plan of Iowa, Inc. (West Des Moines, IA)
Share Health Plan of Minneapolis (Bloomington, MN)
Share Health Plan of Nebraska, Inc. (Omaha, NE)
Sisters of Providence Good Health Plan of Oregon (Portland, OR)
Southeast Health Plan of Alabama, Inc. (Birmingham, AL)
Southern Health Plan, Inc. (Memphis, TN)
Southern Health Services (Richmond, VA)
St. Louis Labor Health Institute (St. Louis, MO)
TakeCare Corporation (Oakland, CA)
Texas Health Plan (Austin, TX)
Total Health Care (Kansas City, MO)
Total Health Care Plan, Inc. (Cleveland, OH)
Trane Health Protection Plan (Wausau, WI)
Tufts Associated Health Plan (Waltham, MA)
United Health Plan (Columbus, OH)
United Health Plan (Inglewood, CA)

University Health Maintenance Organization, Inc. (Cincinnati, OH)
VIP Health Plan/Ventura County HMO (Oxnard, CA)
Valley Health Plan (San Jose, CA)
ValuCare (Fresno, CA)
Welborn HMO (Evansville, IN)
WellCare of New York, Inc. (Newburgh, NY)
West Alabama Health Services, Inc. (Eutaw, AL)
Western Ohio Health Care Plan (Centerville, OH)
Wisconsin Health Organization Insurance Corporation, Inc. (Milwaukee, WI)

HMO INDUSTRY PROFILE

Volume 2: Utilization Patterns, 1988

by
Dennis Hodges, M.S.P.H.
Kevin Camerlo, B.A.
Marsha Gold, Sc.D.

1990 Edition

Data from the Group Health Association of America's
Annual HMO Industry Survey

September 1990

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Volumes in the Series

Volume 1: Benefits, Premiums, and Market Structure in 1989
Volume 2: Utilization Patterns, 1988
Volume 3: Financial Performance, 1988

Each volume incorporates analysis of both current characteristics and trends.

PREFACE

These are historic times for the Health Maintenance Organization (HMO) industry. Over the past several years, the industry has had unprecedented expansion, both in the number of plans and in total enrollment; in addition, the characteristics and sponsorship of plans have diversified. In late 1988, major amendments were adopted to the federal HMO Act to provide plans with greater flexibility to respond to market pressures and competitive forces. Indeed, the very success of the HMO approach to providing health care has resulted in the more widespread adoption of some features of HMO practice in the fee-for-service system and has led to the focus today on managed care.

Under these circumstances, it is critical that information and analysis exist so that the experience of the most successful models of managed care can be understood. The development of relevant data on which the structure, performance, and trends in the HMO industry can be assessed is of particular importance. For this reason, the Group Health Association of America, Inc. (GHAA), the oldest and largest trade association representing prepaid managed health care systems, initiated the Annual HMO Industry Survey. The *HMO Industry Profile* is the major vehicle through which data from this survey are distributed.

This series of reports presents the results of GHAA's fourth Annual HMO Industry Survey. In its multiple volumes, the report provides information on a number of dimensions of HMO structure, performance, and trends, including benefits, premiums, utilization rates, and financial measures. Each volume incorporates analysis of both current characteristics and trends.

These reports provide the most comprehensive an detailed set of information on HMOs available, with a range of information virtually unsurpassed by that developed by any other segment of the health care industry. The reports reflect the efforts of GHAA's Research and Analysis Department under its Director, Marsha Gold, Sc.D. The reports could only be produced with extensive industry cooperation. The considerable time spent by plans in providing data is particularly impressive given today's competitive climate and economic pressures.

Developing a statistical base for any industry is a long-term process. We continue to make improvements in the content and format of the survey and *Profile* based on feedback from our members and the broad spectrum of other users of the reports. We have been encouraged that the range of information provided has been useful to diverse audiences and welcome further suggestions or advice as we proceed further with this effort.

James Doherty
President and CEO
Group Health Association
of America, Inc.

ACKNOWLEDGMENTS

This volume was prepared by Dennis Hodges, M.S.P.H., Research Associate, under the direction of Marsha Gold, Sc.D., Research and Analysis Director. Mr. Hodges was also responsible for all aspects of survey operations related to the GHAA's Annual HMO Industry Survey. Kevin Camerlo, B.A. contributed to the data analysis for this volume and the general data management and editing process for the survey. Leela Nelapudi provided secretarial support.

Professor Sam Shapiro of Johns Hopkins University provided advice on survey methods, as he has from the initiation of this project. We are particularly grateful to him for his continuing interest, support, and other contributions that he has made to this project.

As always, we wish to thank all the HMOs that responded to the survey, taking time to collate the requested statistics from across their organizations. Without the support of the industry, this report would not exist.

Dennis Hodges, M.S.P.H.
Project Manager, Annual HMO Industry Survey

Marsha Gold, Sc.D.
Director, Research and Analysis

September 1990

HIGHLIGHTS

This report is based on the Group Health Association of America's fourth Annual Health Maintenance Organization (HMO) Industry Survey. The mail survey was sent to all HMOs operational on or before January 1, 1988. Findings are for 1988 or, when they refer to a specific point in time, for December 31, 1988, except as noted. Trends are analyzed based on responses for 1988 and data from prior surveys undertaken in the 1985-1987 period.

The 332 responding plans enrolled 23.7 million members on December 31, 1988. Responding plans represent 58% of all surveyed HMOs; their members include 74% of the national enrollment in the plans for this period. Plans over 3 years old had a higher response rate to the survey: 63% of these plans responded; these plans included 75% of the enrollment in all HMOs over 3 years old. In addition, with the maturation of the industry, most plans were in this category in 1989. Unless otherwise stated, the highlighted findings refer to HMOs over 3 years old ("established" plans).

Overall Utilization

- In 1988, HMOs provided an average of 438 inpatient days per 1,000 enrollees. This average represents a discharge rate of 92 per 1,000 enrollees and an average length of stay of 4.8 days. HMOs provided an average of 5.1 encounters per member per year; 4.0 of these encounters were with a physician.

- For the under-65 population, the average inpatient days per 1,000 enrollees was 358, which contrasts with a rate of 1582 days per 1,000 enrollees for those 65 and over (the elderly). Encounters per member per year were also higher for the elderly than the under-65 population (9.5 versus 5.1).

- Inpatient utilization rates in HMOs were substantially below the national average. HMOs provided 358 inpatient days per 1,000 enrollees under age 65, which contrasts with a national average of 519 inpatient days per 1,000 enrollees. HMO rates for the elderly were 1582 days per 1,000 versus a national average of 2,970 days per 1,000.

- The number of physician visits for HMO enrollees was below the national average. For persons under 65 years old, HMOs averaged 3.8 physician encounters per person per year compared with the national average of 4.3 encounters. For the elderly, HMOs averaged 7.2 physician encounters per person per year versus the national average of 7.8 encounters.

- New HMOs (those operational for 3 years or less) had higher inpatient days per 1,000 enrollees and discharge rates per 1,000 enrollees than established plans, for enrollees less than 65. There was no significant difference between new and established plans for inpatient utilization measures for the elderly or for all enrollees populations.

Utilization by Plan Characteristics

- For the under-65 population, inpatient utilization rates for HMOs in the Mountain/Pacific region were lower than other regions. The shorter lengths of stay for the Mountain/Pacific region appear to be a major factor in the lower use of inpatient days.

- Larger plans had lower rates of inpatient utilization than smaller plans for the under-65 population. The lowest averages for days per 1,000 (328) and discharges per 1,000 (74.2) were reported by plans with 100,000 enrolles or more.

- Staff and group model HMOs had a lower average number of physician encounters per member per year relative to network and IPA

(Individual Practice Association) model HMOs. The may be due to a higher usage of non-physician providers, such as nurse practitioners, physician assistants, and midwives by staff and group models.

Medicare and Medicaid Utilization

- Averaged over all established plans, the mean number of Medicare and Medicaid enrollees was 6,324 and 3,058 respectively. For those plans participating in these programs, the average number of enrollees was 11,508 for Medicare and 11,228 for Medicaid.
- Medicaid participants had an average of 515 in-patient days of care per 1,000 enrollees, which represents 125.7 discharges per 1,000 enrollee and an average length of stay of 4.2 days. Medicare participants had an average of 1967 days per 1,000 enrollees, which represents 275.2 discharges per 1,000 enrollees and an average length of stay of 7.0 days.

Caesarean Section Rates

- The median caesarean section rate for Network/IPA model HMOs was 26% compared with the median caesarean section rate of 20% for Staff/Group model HMOs. The distribution of reported values for Network/IPA model plans was much broader than the range of values for Staff/Group model HMOs.

HMO Demographic Profile

- On average, the enrolled population of established plans was 47% male and 53% female. Fifty-one percent of all enrollees in established plans were in the 17-44 year old age group. Overall, females in the primary childbearing years comprised over one-quarter of the total HMO population in established HMOs.
  - On average, females of child bearing age used 417.9 days per 1,000, which compares to 222.5 days per 1,000 for males in the same age group.

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I. INTRODUCTION

This report, volume 2 of a three-volume series, provides a statistical profile and detailed information on the current utilization patterns of the Health Maintenance Organization (HMO) industry; it is based on the fourth Annual HMO Industry Survey of the Group Health Association of America, Inc. (GHAA). The three volumes are:

1. Benefits, Premiums, and Market Structure in 1989
2. Utilization Patterns, 1988 (this volume)
3. Financial Performance, 1988

Trend analyses are incorporated into each volume, as well as selected special topics collected on a periodic rather than annual basis.

This volume includes information on the inpatient and outpatient utilization experience of HMOs and provides a demographic profile for HMOs. Survey highlights and key findings follow the acknowledgments. The text reviews and discusses the survey findings. The final section, detailed tables, addresses specific needs for statistical data on HMOs in general and by plan characteristics.

All tables report separate and aggregate results for established plans (over 3 years old) and for new ones (3 years old or less). The characteristics of the established plans are emphasized in this report. Statistics for new plans are noted when they differ from the established ones. The detailed tables can be used for reference on statistics cited. These tables also serve as a source of data on all responding plans and give breakdowns by plan characteristics and by plan age.

As the HMO industry has grown and diversified, the demand for data on it has increased. According to the most recent GHAA data, 591 HMOs enroll over 34.7 million Americans. One in seven Americans is enrolled in an HMO, and this number is likely to grow considerably within 10 years.[1]

An increasing number of employers offer HMOs, in part because they provide a vehicle that furnishes a fairly comprehensive benefit package at a reasonable cost. The same cost concerns lead many employees to select this option. For example, 62% of employers responding to a recent health benefits survey indicated that they offered HMOs in 1988 and that 33% of all eligible employees joined.[2] According to the U.S. Bureau of Labor Statistics, HMO market share for employer-provided health insurance by large and medium-sized firms grew to 19% in 1988, up from 13% in 1986 and 7% in 1985; HMO market penetration in some areas, such as California and Minnesota, is higher.[3] HMOs are being similarly considered by other payers such as Medicare and Medicaid, although the percentage of HMO enrollment from these programs is still relatively small.

Founded in 1959, GHAA is the oldest and largest national association representing prepaid, managed health care systems. The GHAA Annual HMO Industry Survey was initiated 4 years ago as one of several strategies designed to address the need for information on the industry as it grows and evolves. This survey represents the most comprehensive recent effort to examine characteristics of HMOs.

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[1] Actual enrollment percentages vary widely by geographical areas; nationally, HMO enrollment includes 14% of the population of the United States (*Ibid.*). There are difficulties in projecting future trends; differing estimates have been made. Kenneth Abramowitz of Sanford C. Bernstein and Company has estimated that 25% of the private-pay population would be enrolled in HMOs by 1992 and 40% by 1997 (Kenneth S. Abramowitz, *Future of Health Care Delivery in America*, New York: Sanford C. Bernstein and Company, Inc., 1988, pp. 26-27). More conservative estimates have placed HMO enrollment in 1995 at 20%-30% of the population (Karen Davis et al., *Health Care Cost Containment*, Baltimore: Johns Hopkins University Press, 1990). These estimates are based on an Arthur D. Little study predicting 25%-30% enrollment and an Alex Brown and Sons estimate predicting 20%-25% enrollment.

[2] *Foster Higgins Health Care Benefits Survey 1989* (New York: A. Foster Higgins and Company, Inc., 1989). These results are based on a survey of over 1,943 employers with programs covering 12.4 million employees. The survey was distributed through 42 business coalitions in August 1989; the respondents may not be representative of all employers. Compared with the 1988 survey, both the percentage of employers offering an HMO and the percentage of employees enrolled were relatively constant after considerable growth in 1986 and 1987. In 1986, 54% of employers offered HMOs and 19% of eligible individuals were enrolled (*Johnson Higgins Corporate Health Care Benefits Survey 1986*). According to the survey, virtually all of over 20,000 employees offer HMOs, as do over three-quarters of employers with over 1,000 employees.

[3] Bureau of Labor Statistics, *Employee Benefits in Medium and Large Firms, 1988*, Bulletin 2336 (Washington, D.C.: U.S. Bureau of Labor, August 1989). For information on HMO market penetration by state, see GHAA's *National Directory of HMOs, 1990*. These data indicate that at year end 1989, 30.8% of all California residents and 28.3% of Minnesota residents were enrolled in HMOs.

II. OVERVIEW OF METHODS

Data Source and Methods

The fourth Annual HMO Industry Survey was a mail survey sent to all HMOs listed in the *GHAA National Directory of HMOs, 1989*, which includes all HMOs, regardless of type or GHAA membership status. The survey was restricted to those plans operational on or before January 1, 1988.[4] The lengthy questionnaire covered a variety of topics, including plan characteristics, the structure of various benefits offered, premium rates and rate-setting methods, enrollment and utilization, employer data requests, diversification, and financial performance. Respondents could submit copies of the National Association of Insurance Commissioners (NAIC) "Orange Blank" instead of completing the utilization and financial sections of the survey.

The questionnaires were mailed in mid-April 1989; a postcard was sent as a reminder to respond a month later, and a second mailing to HMOs that had not responded took place three weeks later in the second week of May 1989. In late June 1989, personalized follow-up letters were sent to all non-responding plans that had responded to previous surveys; some telephone calls for follow-up were also selectively made.[5] In the survey, confidentiality of data was assured. Most questions referred to status as of March 31, 1989. Utilization and financial statistics were requested for 1988 because plans can most readily provide these on a calendar year basis. Although survey execution and content were generally consistent with the prior years, the timing of the survey and data request period for items covered in volume 1 of this series were shifted to enhance the timeliness and utility of the resulting analysis.[6]

The survey was sent to 580 of the 614 plans listed in the *Directory*, with the remaining thirty-four plans excluded because their operational dates were after January 1, 1988. Based on the survey responses, ten were eliminated from the sampling frame. In most of these cases, because the responding plans indicated that component plans surveyed were more appropriately aggregated as a single plan. In one case, a plan was dropped because it had terminated operations. Therefore, 570 plans were considered in identifying the level of response to the survey.[7]

Response Analysis

A total of 332 plans responded to the survey. The Appendix lists these plans. Overall, respondents to the survey represent 58.2% of all plans operational in 1988; their 23.7 million members include 73.5% of all enrollees in HMOs in the United States at year end 1988.

Appendix Table 1 includes a tabular display of response rates for various types of plans, based on year end 1988 information included in GHAA's *National Directory of HMOs, 1989*, which was the source used in identifying plans surveyed. General findings and patterns of results are summarized here.

Response rates to the survey were higher for established plans (those operational for over 3 years) than for new plans (those operational for 3 years or less), although a higher percentage of these latter plans responded this year than in prior years. Sixty-three percent of established plans responded versus

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[4] This restriction was applied because very young plans may not be sufficiently established to give meaningful responses to a number of the items covered in the survey (e.g., utilization and financial performance), and their structures may not be very stable. In addition, we wished to reduce the administrative burden on these very young plans. Although this criterion eliminated a number of plans, the HMO enrollment in these plans is small. We did not feel that omitting these plans would detract from the ability to generalize to the HMO industry.

[5] Returned questionnaires were logged and manually reviewed and edited. A limited number of telephone calls were made to clarify responses to individual items or verify potentially erroneous data (e.g., employer contribution rates of less than 50%, to verify that the employee-employer share had not been transposed). SPSS-PC software was used to analyze the results.

[6] This move represents the second and final stage of a shift to a spring collection cycle, linked to a decision to use a different and more current request date for other than utilization and financial data. An April collection date allows for the most current and feasible utilization and financial reporting. Because the majority of contracts renew in January, the largest shifts in plan benefits, premiums, and market structure activities are linked to this period. The March 31, 1989, collection date provides data that are probably reasonably representative of the situation for that calendar year. As noted in the User's Note at the outset of this volume, a few items without rapid change (on membership composition and for detail on some specific benefits offered by HMOs) were omitted during the transition year to ease the burden on plans surveyed only 6 months before, and enhance the response rate to the survey.

[7] A small number of responding plans submitted aggregated statistics in reporting their utilization data. In particular, some organizations with two or more plans in one state submitted unified data and one multi-state organization (with contiguous service areas) submitted data for several plans in aggregate. These consolidations, which have a small effect on analysis for were allowed to maximize the response rate to the survey and enhance its general applicability. However, a few other submissions were not allowed when the aggregate appeared inconsistent with survey intent, which is to profile the HMOs in the industry (e.g., a submission merging data based on both HMO and preferred provider organization operations for a single plan).

48.0% of new plans. Reflecting the maturation of the industry, 70% of all plans surveyed in this cycle—and 92% of the enrollees in these plans—were in the established plan category. As a result, statistics for these plans are reasonably representative of the typical experience of most HMO enrollees.

Within established plans, 48% or more of all plans responded for each plan type that could be examined based on data in the *Directory*. However, the level of response did vary somewhat by plan characteristic. Response rates were higher for plans with 8 or more years' operational experience than for younger ones; just under three-quarters of the former responded, while 55% of the plans 4-7 years old responded. Response rates also increased with plan size and were higher for nonprofit plans than for-profit plans (73% versus 56%, respectively). Group and network model plans were most likely to respond (73% and 67%, respectively); IPAs (Individual Practice Associations) had the lowest response rate of all model types (59%). Some of these patterns could be attributed to the interrelationship of plan age and other characteristics. In addition, GHAA member plans were more likely to respond to the survey (78% versus 48% for nonmembers). The response rate varied minimally for federally qualified and non-qualified plans (65% versus 59%, respectively).

Because older and larger plans were more likely to respond to the survey, responding plans represent a larger share of the national HMO enrollment than they do of all plans. Responding plans represent 73.5% of the total enrollment of surveyed plans. Responding established plans include 75.2% of all enrollees nationally in established plans. The responding new plans include 55.1% of the enrollment nationally in new plans with one year's operational experience or better. Patterns of response by enrollment are similar to those by plan. The differences in response rates for new plans may be related to the intensive organizational efforts needed at the initial operational stage.

Response to Utilization Items

Item response for most data areas included in this volume varied from the response rates for the survey as a whole, since not all 332 plans responded to the utilization section of the survey and those that did were not always able to complete all items. The most complete data were generally for aggregate utilization items. A total of 292 plans provided inpatient days per 1,000 for all enrollees, representing more than 22 million enrollees. Of those providing such data, 13% were staff, 16% were group, 13% were network, and 58% were IPAs, a distribution fairly similar to the overall survey response. A total of 224 plans provided information for the total number of encounters per member per year; these plans include 20 million enrollees. Of these plans, 16% were staff, 19% were group, 10% were network, and 55% were IPAs, providing a slightly better representation by group and staff models compared with overall industry response. A smaller number of plans responded to some items, e.g., utilization by age and sex and caesarean section rates. Although this small response detracts from confidence in the generalizability of these items, there is considerable interest in these measures, and this survey is often the only source for this type of information.

The number of responding plans included in the analysis of each item is shown or referenced in the table for that item; in some cases, it is less than the total number of respondents to that item because some analyses required that plans have complete data on several items. These omissions also result in some minor inconsistencies across the same statistics in different tables.

Comparison of Respondents to Last Year's Survey

Response rates to this year's survey were higher than to last year's survey, reflecting the institutionalization of the survey process and the growing support for it in the industry. Among established plans that have been the focus for the analysis, the response rate has increased from 44% to 55% to 63% over the past three years. (The 58% response rate for all surveyed plans this year compares with 45% and 33% for the 1989 and 1988 editions of the *Profile*, respectively.)

As response rates have improved, those responding also have become more representative, although there are still some differences consistent with the variation in response rates noted above.[8] This difference increases the ability to generalize from the survey. Unfortunately, it also makes comparisons of year-to-year changes more difficult, particularly for those items that vary considerably by plan characteristic. Hence, differences in respondents across the survey years should be considered in analyzing changes in year-to-year responses to the survey.

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[8] For example, the *Directory* data for 1988 indicated that 55% of all established plans were IPAs versus 52% of respondents to this year's survey. The 54% of established plan respondents organized on a for-profit basis compares with 61% of all established plans. The enhanced response by IPAs is particularly notable this year. Similarly, starting last year, insurer-owned plans were increasingly represented in the survey although the absence of statistical data on the overall number of these plans precludes an assessment of response rates by ownership category.

Of the 332 plans responding to this year's survey, 204 were included in the 259 plans responding last year. This could understate the overlap across years to some extent because of industry consolidation and the difficulty of tracking plans that change ownership. A greater degree of overlap also is likely for established plans since their response rates to the survey have been higher.

Analytical Techniques and Survey Limitations

The GHAA Annual HMO Industry Survey provides the most comprehensive and detailed source of information currently available on the HMO industry; nonetheless, certain limitations should be recognized in interpreting the data.

The response rates and response patterns to the survey should be considered in interpreting the results and generalizing them to the industry. Because their response rates are higher and also because they represent the plans including the vast majority of HMO enrollees, established plan statistics are emphasized in the text. In addition, most tables are arrayed to present the results for plans of various characteristics separately; results for established plans are broken out from total results.[9] The reader should place greater confidence in these generalized results for established plans.

Statistics by plan characteristics can be used to develop a better estimate for generalizing information to particular types of plans. However, caution should be exercised in drawing inferences on causality. Many plan characteristics are interrelated, and many other factors may influence plan performance. Additionally, small differences in statistics for categories of respondents should generally be overlooked because they may easily represent random variation.

Because the responding plans are not identical, caution should be used in comparing data across surveys of different years, as noted previously. Some year-to-year comparisons are presented based solely on plans reporting in each of those years. Although these subsets of plans provide a less generalizable industry-wide estimate for any given year than the full set of plans responding that year, they indicate the changes occurring within a cohort of plans and can be used to validate trends apparent from the cross-sectional comparison across years.

Finally, the design of the analysis uses the individual HMO as the unit of analysis rather than weighting plans by total enrollment. This approach allows a characterization of the industry as it is reflected in its individual plans, which was the reason it was selected over a weighted analysis. This approach is particularly useful since the industry is undergoing changes. Although the approach is desirable in a number of ways, it does not necessarily reflect the average experience for an individual HMO enrollee because a disproportionate number of enrollees are in the larger plans.

The statistics in Table 1 show the distribution of enrollees across responding plans and can be used to identify the ways that specific findings are likely to affect the experience of individual HMO enrollees. For example, although findings for plans 16 years old or older apply to only 11.7% of all responding plans, these plans include 38.7% of all enrollees in responding HMOs. The reader can estimate how a particular statistic translates into the average experience of HMO enrollees by weighting the statistics given for each plan characteristic by the share of the total HMO enrollment represented in plans of that type.

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[9] Although statistics are presented for plans in operation 3 years or less, this year's report does not generally break these statistics down by plan characteristic, because of the relatively small number of total plans included in this group this year (29) and the lack of variability on many characteristics.

III. CHARACTERISTICS OF RESPONDING PLANS

This section summarizes the major characteristics of responding plans as of year end 1988. An overview of characteristics is presented first, followed by a brief comment on some of these characteristics.

Overview of Plan Characteristics

Table 1 presents data on the distribution of responding plans and enrollees among plans of different characteristics. Characteristics of established plans are discussed first, followed by those of new plans.[10]

Plans Operational for Over 3 Years

Of the 332 responding plans, 246 had been operational for over 3 years. These plans represent 74% of all plans that responded to the survey and 93% of all enrollees in responding plans. These plans had a total of 22.9 million enrollees as of December 31, 1988.[11]

Of plans operational for more than 3 years, 53% are IPAs, with the remainder spread relatively evenly among staff, group, and network model plans. However, group model plans have approximately the same share of enrollment as IPAs (37.6% versus 33.4%, respectively). More than two-thirds (69.9%) of the established plans are federally qualified. Fifty-four percent are for-profit and 46% nonprofit. In comparison with last year's responding plans, this year's set of plans includes a larger proportion of IPAs and for-profit plans. This increase reflects both response rates, which are more closely aligned with the industry (see Section II of this volume), and the maturing of the industry as a number of plans move from the "new" to the "established" categories this year.

The median enrollment for established plans was 92,874 members as of December 31, 1988; the mean was 50,596. Most plans are at the younger end of the age distribution (46.7% are 4-7 years old), but enrollees are disproportionately distributed in the older plans. Forty-two percent of enrollees in established plans are also in the 15.9% of plans operational for 16 years or more; 30.1% of enrollees are also in the 11 responding plans that are 26 years old or older. Plans are located nationwide but are concentrated most heavily in the Mountain/Pacific and East Central regions. Their ownership varies considerably, with independent HMOs having the largest proportion of enrollment.

Plans Operational for 3 Years or Less

Plans operational for 3 years or less (new plans) comprise 26% of the respondents to the survey and 7% of the total enrollment of all the respondents.[12] In comparison with established responding plans, the new plans are considerably more likely to be IPAs (70.9%), for-profit (79.1%), and non-federally qualified (65.1%). They also are considerably more likely to be provider-sponsored (39.5%).

The median enrollment was 14,051 with 69.8% of plans having fewer than 20,000 members and only 7.0% of plans having 50,000 members or more. The mean enrollment was 19,814. New plans were more likely than established ones to be based in the South Atlantic region.

Comment on the Nature of Various Plan Characteristics

HMOs are complex organizations. As a result, any method of classification results in some simplification. In considering plan characteristics, readers may want to be aware that some plans use a mix of HMO models, obtain federal qualification for some service areas only, and have a complex ownership pattern.

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[10] For this purpose, the years in operation are computed based on plan reports of the date that they became operational; any year in which a plan was operational for part of the year is considered as a full year. For simplicity, all plans with an initial year of operation of 1986 or later are considered to have 3 or fewer years in operation for analysis in this volume based on December 31, 1988. The remainder are considered as "established."

[11] Enrollment reported by respondents to GHAA's *Annual HMO Industry Survey* differs with the enrollment reported in the data collection for GHAA's *National Directory of HMOs,1989*. Data from the *Directory* were used to provide uniform information for the calculation of response rates. The difference in reporting is primarily due to differences in the timing of data collection as well as the general tendency of respondents to the *Industry Survey* to be more precise (e.g., less likely to round the number) in their reporting. The total enrollment reported for December 31, 1988 by respondents to the survey was 24,550,954. For plans > 3 years, total enrollment was 22,846,934. For plans ≤ 3 years, total enrollment was 1,704,020.

[12] See footnote 11.

GHAA in its analyses of plans bases results on the predominant model types, asking plans to select which definition among the four choices of staff, group, network, and IPA best describes their plan.[13] However, a plan may have multiple types of arrangements with physicians to develop a provider network appropriate to the service area of the plan and its characteristics. These arrangements could result in use of plan components representing a variety of HMO models.

Federal qualification also may be handled diversely within a single plan, with plans federally qualified in some service areas and not in others. Plans were categorized as federally qualified if plans were qualified in any of their service areas.

HMO ownership is complex. The ownership categories used were selected to highlight major differences in types of plans by ownership. However, plans may not fit in any one category, and for some uses composites of categories or alternative categories could be more appropriate.

For example, in some cases, insurers have combined with provider organizations in a joint venture to establish HMOs. In cases where the insurance company appeared to have most ownership, these plans or chains were classified as "other insurer." This classification allows for a separate profiling of most of the plans sponsored by commercial insurers. Hence, insurer-owned plans also include some plans with shared provider ownership.

Plans considered in national HMO chains represent a diverse set of plans with characteristics that could vary considerably in their impact on performance. Most of these chains represent multi-state HMO organizations not owned by insurers or providers. In addition, some of the plans included in this category are partly owned by insurers or providers, with no particular party of clear dominance.

Provider-owned plans include both independent HMOs and those that are part of national chains. Hence, a complete inventory of plans owned by national chains (versus independently owned) would include some plans in this latter category, as well as those in the national HMO chain category and almost all of the plans in the other insurer category.[14]

Finally, for some purposes, readers may want to consider both independent HMOs and other HMO categories together. The ten plans in the "other" category include cooperatives, university-sponsored plans, church-owned plans, public plans, and similar kinds of HMOs. These plans, particularly those not publicly owned, share a number of characteristics with some of the independently owned plans.

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[13] The following definitions are used in the GHAA Annual HMO Industry Survey: (1) *staff*, an organized prepaid health care system that delivers health services through a salaried group that is employed by the HMO unit, (2) *group*, an organized prepaid health care system that contracts with one independent group practice to provide health care services, (3) *network*, an organized prepaid health care system that contracts with two or more independent group practices to provide health services, and (4) *IPA*, an organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations or physicians in independent practice, and/or with one or more multi-specialty group practices (but the plan is predominantly organized around single solo-specialty practices to provide health services).

[14] Although Blue Cross/Blue Shield (BC/BS) plans are affiliated nationally, they are not nationally owned. These plans are based in the states and involve ownership arrangements with the state or more locally based Blue Cross and/or Blue Shield organization. Hence, they form a category distinct from both national chains and independent plans.

IV. OVERVIEW OF UTILIZATION PATTERNS

Prepaid, managed health care systems integrate the financing and delivery of health care services with the aim of providing cost-effective, quality health care. Several studies have shown that HMOs have lower hospitalization rates than do fee-for-service practices and that the quality of care delivered is as good or better.[15] As health care costs have continued to increase, effective management of patient care has continued to be of interest to those in the HMO industry as well as to employer and regulatory groups.

This report is a useful reference because it provides an overview of HMO utilization statistics for the industry. Changes within the industry have increased the level of interest in comparative data. The number of IPA plans has grown, and a number of changes in ownership has occurred. This report addresses the need for comparative data by providing utilization statistics by plan characteristics, allowing comparisons to be made among plans of different types.

This section of the report provides an overview of average utilization rates for 1988 for responding plans. Inpatient measures of utilization are given in terms of discharges per 1,000 members (enrollees), inpatient days per 1,000 members, and average length of stay.[16] For outpatient utilization, total ambulatory encounters per member per year and physician encounters per member per year are used. This is the first time that the Annual HMO Industry Survey has collected physician encounter data (previously, it collected data on total encounters alone). (See Tables 2-7.)

Because plan utilization statistics do not adjust for age differences in the enrollee population across responding plans, they can often be misleading. Because the elderly have substantially higher utilization rates, statistics are reported separately for enrollees under 65 and for those over 65.[17] Unfortunately, not all plans can report this breakdown, and some plans do not serve elderly enrollees. As a result, the utilization data for all ages, while less interpretable, are available for more plans and provide statistics that are more generalizable estimates of overall utilization levels. Unless otherwise noted, statistics refer to established plans (plans over 3 years old).

Average Utilization Rates for Plans Operational for Over 3 Years

Figure 1 provides a summary of the mean utilization rates by enrollee age for established plans. In total, HMOs provided 438 days of inpatient care per 1,000 enrollees with an average length of stay of 4.8

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[15] After reviewing the research on HMOs through the 1970s, Luft concluded that in general the studies showed that HMOs, particularly of the prepaid group practice variety, had substantially lower rates of hospital use, primarily due to lower admission rates. Ambulatory visits were slightly higher in HMOs but differences were not large and studies differed; IPA visit rates were higher than fee-for-service rates. (See Harold S. Luft, *Health Maintenance Organizations: Dimensions of Performance*, New York: John Wiley and Sons, 1981.)

For a review of historical research on the quality of care in HMOs, see Frances C. Cunningham and John W. Williamson, "How Does Quality of Health Care in HMOs Compare to That in Other Settings: An Analytical Literature Review: 1958 to 1979," *The Group Health Journal* 1 (Winter, 1980):4-25.

For more recent research on utilization and quality of care in HMOs, see, for example, William Manning et al., "A Controlled Trial of the Effect of a Prepaid Group Practice on Use of Services," *New England Journal of Medicine* 310 (June 7, 1984):1505-1510; John E. Ware et al., "Comparison of Health Outcomes at a Health Maintenance Organization with Those of Fee-for-Service Care," *Lancet* (May 3, 1986):1017-1022; E.M. Sloss et al. "Effect of a Health Maintenance Organization on Physiologic Health: Results from a Randomized Trial," *Annals of Internal Medicine* 106 (1987):130-138; Albert L. Siu et al., "Use of the Hospital in a Randomized Trial of Prepaid Care," *Journal of the American Medical Association* 259 (March 4, 1988):1343-1346; and K.M. Langwell and J. Hadley, *National Evaluation of the Medicare Competition Demonstrations, Summary Report*, prepared for the Department of Health and Human Services, HCFA, contract No. 500-83-0047 (Mathematica Policy Research, January 1989).

[16] In this report, discharge rates per 1,000 enrollees are calculated by dividing the reported inpatient days per 1,000 enrollees by the average length of stay in the plan. HMOs that could not report both utilization variables for the particular enrollment group of the statistics (for example, the population under 65) are excluded from the statistics for that group.

[17] The utilization rates shown in the figures (and supporting tables) are based on a different number of plans for each age group, with a larger number of plans reporting total utilization rates than age-specific utilization rates. More plans also reported utilization for the under-65 population than for the elderly. While the data would be more comparable if the figures and tables were restricted only to plans reporting all three sets of data (or two in the case of plans without enrollment of the elderly), this comparison was not done because it would have reduced considerably the total number of responding plans included.

Selected Utilization Rates by Enrollee Age, Plans Over Three Years Old, 1988

Figure 1a

Mean Plan Days Per 1,000 Enrollees by Age, Plans Over Three Years Old, 1988

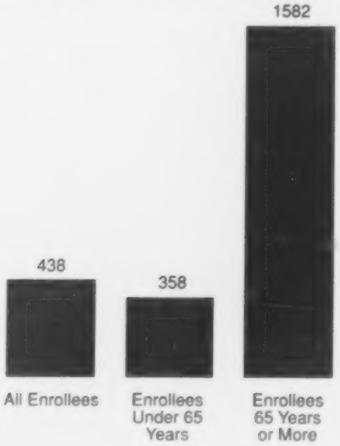


Figure 1b

Mean Plan Discharges Per 1,000 Enrollees by Age, Plans Over Three Years Old, 1988

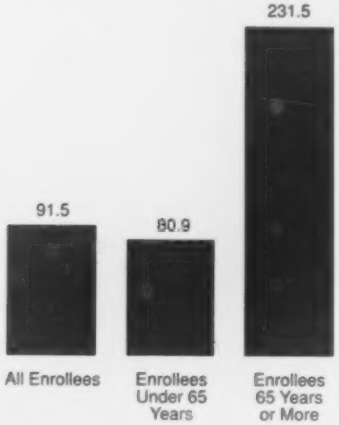


Figure 1c

Mean Plan Inpatient Length of Stay by Age, Plans Over Three Years Old, 1988

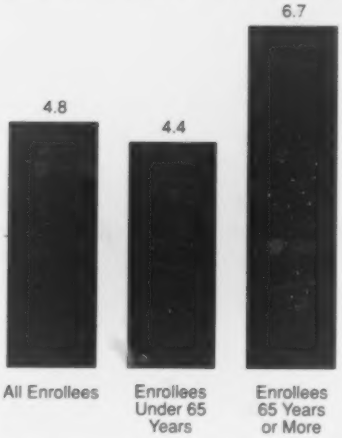


Figure 1d

Mean Plan Total Encounters Per Member Per Year by Age, Plans Over Three Years Old, 1988

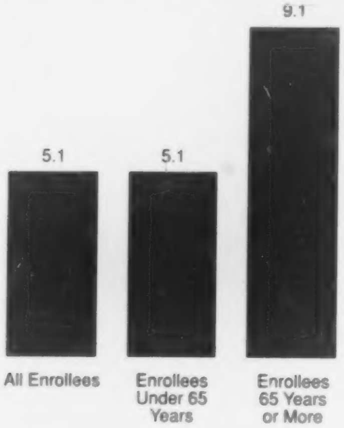
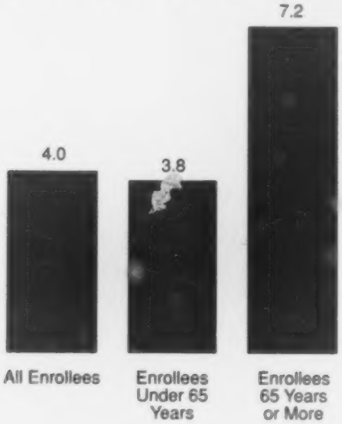


Figure 1e

Mean Plan Physician Encounters Per Member Per Year, by Age, Plans Over Three Years Old, 1988



SOURCE: GHAA's Annual HMO Industry Survey

days and a discharge rate of 91.5 per 1,000 enrollees. (See Tables 2 and 3.) On average, an HMO provided 5.1 total encounters per member per year, including 4 physician encounters. On average, 78% of an HMO's encounters were physician encoumters.

For the under-65 population, the average plan provided 358 days of inpatient care per 1,000 enrollees, with an average length of stay of 4.4 days and a discharge rate of 80.9 per 1,000 enrollees. (See Table 2.) There were an average of 5.1 total ambulatory encounters per member per year and 3.8 physician encounters per member per year. (See Table 4.) On average, 79% of all encounters for enrollees under 65 were physician encounters.

The utilization rates for elderly HMO enrollees are considerably higher than those for the under-65 population. Inpatient days per 1,000 for the elderly were more than four times higher than those rates for enrollees under 65.[18] For ambulatory care, total encounter rates and physician encounter rates for elderly enrollees were almost twice as high as for the under-65 population. For elderly enrollees, the average plan provides 1,582 days of inpatient care per 1,000 enrollees with an average length of stay of 6.7 days and a discharge rate of 231.5 per 1,000 enrollees. (See Table 2.) There were an average of 9.5 total ambulatory encounters per member per year and 7.2 physician encounters per member per year. (See Table 4.) On average, physician encounters were 78% of total encounters for elderly enrollees.

HMO Utilization in Comparison with the National Average

Figure 2 compares inpatient utilization rates and physician encounters in established HMOs with those reported for the United States as a whole both for the under-65 population and for the elderly. National data are based on inpatient utilization statistics derived from the National Hospital Discharge Survey for 1988.[19] On the average, use of services by HMO enrollees is considerably below that of the population as a whole, both for those under 65 and for the elderly.

For the under-65 population, the national average of inpatient days per 1,000 enrollees for the nation is 45% higher than that of the average established HMO. This difference in utilization reflects national discharge rates that were approximately 18% higher and length of stay rates that were 18% higher. The differences probably represent the combined effect of HMO practice styles and variations in the populations included in the two sets of rates.[20]

Compared to prior years, the differences between HMO and national utilization data appear to have narrowed, as national use rates have dropped and HMO rates have remained relatively stable. However, because of changes in the sampling design of the National Hospital Discharge Survey (the source for U.S. comparative data), it is difficult interpret these patterns.

Comparing the number of physician visits per person per year for the U.S. population with the number of physician encounters per member per year in established HMOs shows the same pattern as the comparison of inpatient utilization, but the differences are less marked. For the under-65 population, the average number of physician encounters per person per year was 13% higher in 1988. For the elderly, the average number of encounters per person per year was 8% higher.[21] These data are more re-

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[18] A total of 90 established plans reported full utilization data for the under-65 and elderly age groups. As expected, all inpatient and outpatient measures were significantly higher for the elderly population. All the differences were found to be statistically significant at the 0.05 level.

[19] For national inpatient use data, see Table 70 in *Health United States, 1989*, Department of Health and Human Services Publication (PHS) 90-1232 (Hyattsville, Md., March 1990). Estimation techniques were needed to derive statistics for the under-65 population, as these were only reported in more specific age groups. An aggregate under-65 rate was developed by weighting the age-specific utilization rates according to the proportion of the estimated U.S. population in each age group as reported in Table 17 of the *Statistical Abstract of the United States, 1989*, 109th edition, p. 15. Utilization data are for 1988; the age weights were population estimates for 1988. Use of the estimates for 1988 should not introduce any meaningful amount of error.

The data source for population statistics is the U.S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 1018.

The National Hospital Discharge Survey (NHDS) conducted by the National Center for Health Statistics is the source for the utilization information. Differences in national utilization statistics for previous years and 1988 may be caused by a change in the design of the NHDS rather than true changes in hospital use.

[20] As was noted previously (see note 15), research indicates that HMOs have lower hospital utilization rates than do fee-for-service practices, particularly in admissions. Because of the nature of HMO enrollment, the HMO population also differs from the profile for the U.S. population; similar differences exist for commercially insured populations. HMOs disproportionately serve employed populations and their dependents and noninstitutionalized populations. These differences also contribute to the variation between HMO utilization rates and those of the nation as a whole.

Unfortunately, national utilization rates for the commercially insured indemnity population are difficult to obtain. However, inpatient utilization rates reported for the calendar year of 1988 for the BC/BS combined enrollment of 76 million were 509 days per 1,000 with 84.7 admissions per 1,000 and an average length of stay of 6.0 days. Though these figures are not purely for indemnity insurance, they summarize the utilization experience of a population for which 60% are covered under indemnity insurance. The BC/BS rates are for all lines of business, including 5.0 million enrollees in HMOs, 9.5 million in Preferred Provider Organizations (PPOs), 15 million in other managed care products, and 46.5 million in traditional BC/BS indemnity insurance.

[21] The national comparison is based on data from the National Health Interview Survey for 1988. This survey represents a stratified random sample of the noninstitutionalized U.S. population. See Table 64 in *Health United States, 1989* (see note 19 for full reference). This survey shows physician visits by source of care and age. After removing telephone visits (so that the result would be more comparable to an encounter measure), the same adjustments were made to aggregate age groups as is noted in footnote 19.

Figure 2

Hospital Days, Discharges, Length of Stay, and Physician Encounters Per Person Per Year by Age, HMOs versus National Average, 1988

Figure 2a

Hospital Days Per 1,000 by Age, HMOs versus National Average, 1988

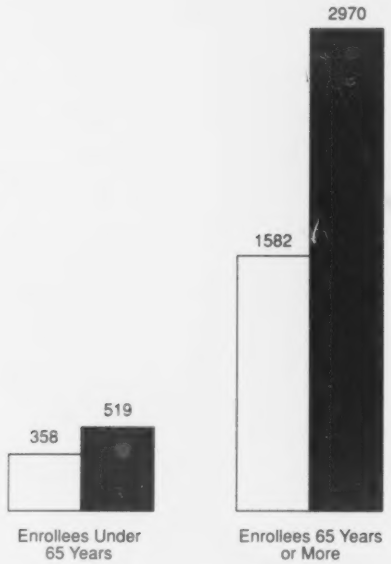


Figure 2b

Hospital Discharges Per 1,000 by Age, HMOs versus National Average, 1988

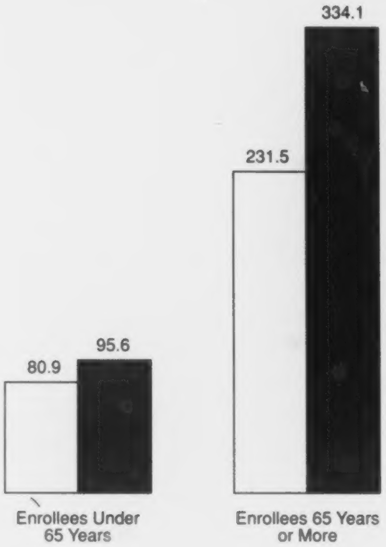


Figure 2c

Hospital Length of Stay by Age, HMOs versus National Average, 1988

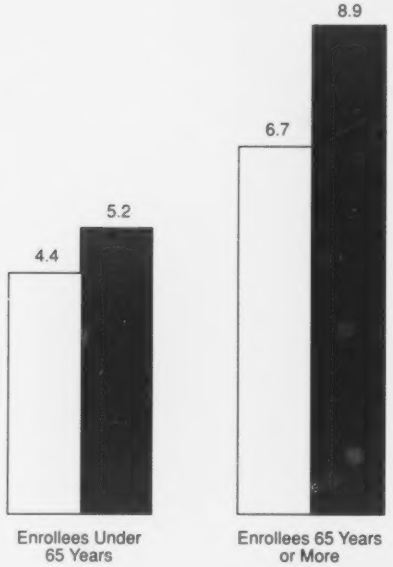
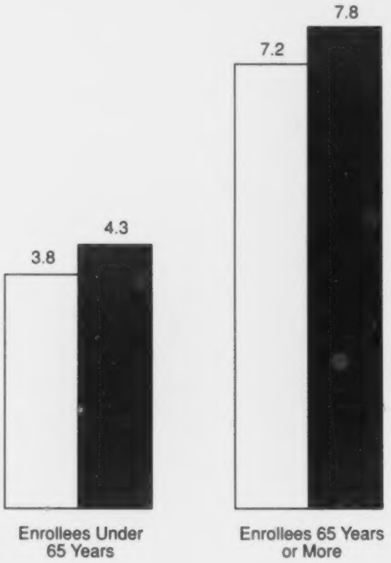


Figure 2d

Physician Encounters Per Person Per Year, HMOs versus National Average, 1988



☐ HMOs Over 3 Years Old ■ National Average

SOURCE: GHAA's Annual HMO Industry Survey, National Hospital Discharge Survey, National Health Interview Survey vealing than comparisons made in previous editions of the *HMO Industry Profile* because they specifically compare physician visit rates in both practice settings. Previous reports using total HMO encounter data have suggested that the number of encounters per person per year for HMOs was higher than that of the population as a whole. Although complete national comparative data for assessment is lacking, HMOs may be more likely to use non-physician personnel than fee-for-service providers. Patient-mix differences also could explain the difference in physician encounter rates between the fee-for-service and HMO systems.

Average Utilization Rates for Plans Operational for 3 Years or Less

For the under-65 population, inpatient days per 1,000 enrollees and discharge rates per 1,000 enrollees for new plans were significantly higher on the average than those for established HMOs. There was no significant difference between the values reported for new and established plans for inpatient utilization by elderly enrollees or the total enrollee population. Additionally, differences in ambulatory utilization for the total enrollee population for new and old plans were not statistically significant. (See Tables 2 and 4.)[22]

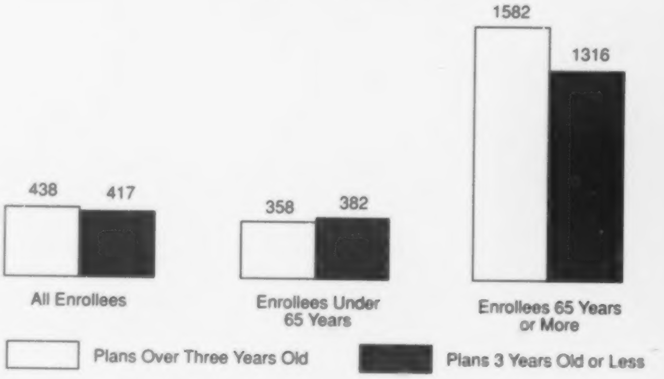
For the under-65 population, the average new plan provided 382 days of inpatient care per 1,000 enrollees, with an average length of stay of 4.4 days and a discharge rate of 88.7 per 1,000 enrollees. For elderly enrollees, new plans provided 1,316 days of inpatient care per 1,000 enrollees, with an average length of stay of 6.3 days and a discharge rate of 196.8 per 1,000 enrollees. (See Figure 3.) Compared with established plans, new plans had higher utilization rates for the under-65 population and lower rates for the elderly. It is possible that new plans have a different mix of elderly enrollees (e.g., more working aged), which would explain this disparity. However, the difference between new and established plans for elderly utilization rates was not statistically significant.

The mean number of total encounters per member per year was lower in new plans than in established plans (Figure 4). For the under-65 population, new plans provided 4.2 total encounters per member per year, while established plans provided 5.1. For the elderly population, the new plans provided an average of 6.3 total encounters per member per year compared with 9.5 total encounters per member per year for established plans.

The mean number of physician encounters per member per year was also lower in new plans than in established plans. New plans provided 3.4 physician encounters per member per year on average for the under-65 population and 5.1 encounters per member per year for the elderly. In comparison, established plans provided 3.8 physician encounters per member per year for the under-65 population and 7.2 encounters per member per year for the elderly.

Figure 3

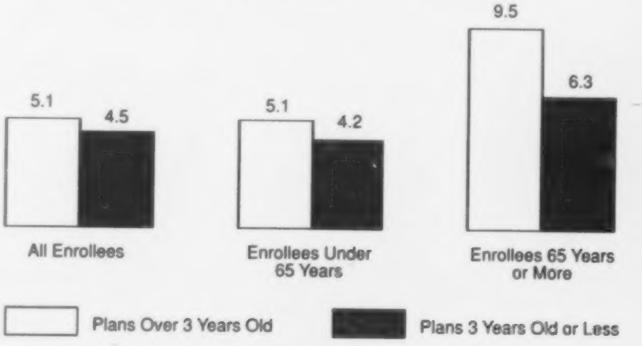
Mean Inpatient Days Per 1,000 Enrollees by Enrollee Age and Plan Age, 1988



SOURCE: GHAA's Annual HMO Industry Survey

Figure 4

Mean Plan Total Encounters Per Member Per Year by Enrollee Age and Plan Age, 1988



SOURCE: GHAA's Annual HMO Industry Survey

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[22] To assess the statistical significance of the differences in utilization rates by plan age, *t*-tests were computed. Significant differences were noted at the 0.05 level or better unless otherwise noted. This means that in only 5 or fewer times out of 100 is it likely that the differences in means between new and established plans would have occurred by chance.

For the under-65 population, higher days per 1,000 enrollees for new plans compared with established plans had a 0.008 probability of occurring by chance. Lower discharges per 1,000 enrollees for new plans compared with established plans had a 0.004 probability of occurring by chance. No significant differences between new and established plans were found for average length of stay.

For the elderly, no significant difference was found for inpatient utilization measures between new and established plans.

Trends in Utilization

Exhibit 1 provides an overview of utilization for 1985 to 1988. It includes use rates for all plans reporting each year regardless of plan age and; it also includes rates for established plans for the 1986 to 1988 time period. These results are based on data from prior years and are identical to those reported previously by GHAA. Because the responding plans and the treatment of extreme values have differed over the years, they should be considered cautiously. Differences in the population of plans reporting effect the averages considerably. These values are presented largely for illustrative purposes. Examination of Exhibit 1 could lead to the erroneous conclusion that discharges per 1,000 enrollees and days per 1,000 enrollees are declining for the elderly population. Additionally, the number of encounters per member per year seems to increase for both the under-65 and elderly populations.

To provide a more consistent means of evaluation, a year-to-year comparison of plans providing data for at least 2 years is presented in Exhibit 2. The utilization experience of plans is compared using consistent statistical assessment rules and is based only on plans reporting both for 1986 and 1987 as well as 1987 and 1988. For that purpose, the analysis includes all plans responding in the two year period, rather than restricting analysis to established plans.

This analysis shows no obvious trends in inpatient utilization for the 1986-1987 and 1987-1988 periods.[23] The decline observed in the cross-sectional results shown in Exhibit 1 is most likely due to variations in the population of responding plans or to data definitions.

For ambulatory care, the number of encounters per member per year appears to have increased between 1986 and 1987 for both age groups.[24] The trend toward increased ambulatory utilization in prior years is consistent with previous analysis covering the 1985-1986 period.[25] However, this increase did not continue in the more recent 1987-1988 period.

Exhibit 1
Summary of Utilization Measures 1985–1988, by Enrollee Age

	All Plans				Plans > 3 Years Old		
	1985	1986	1987[1]	1988[1]	1986	1987[1]	1988[1]
Discharges/1,000							
All Enrollees	95	92	90	92	92	90	92
Enrollees <65	84	85	82	82	82	81	81
Enrollees ≥65	253	253	239	228	262	248	232
Days/1,000							
All Enrollees	456	440	417	433	452	428	438
Enrollees <65	372	375	356	362	351	352	358
Enrollees ≥65	1,843	1,710	1,641	1,553	1,835	1,690	1,582
LOS							
All Enrollees	4.9	4.8	4.7	4.7	4.9	4.7	4.8
Enrollees <65	4.5	4.5	4.4	4.4	4.4	4.4	4.4
Enrollees ≥65	7.1	6.9	7.0	6.7	7.1	7.0	6.7
Encounters/Member/Year							
All Enrollees	4.1	4.7	4.9	5.0	4.8	5.0	5.1
Enrollees <65	3.9	4.3	4.7	4.9	4.4	4.8	5.1
Enrollees ≥65	7.4	8.3	9.0	8.9	9.1	9.1	9.5

Notes:
1. Data were trimmed for 1987 and 1988. Values greater than three standard deviations from the mean or values less than a minimum threshold were excluded. The threshold for discharges/1,000, days/1,000, LOS, and encounters/member/year were five, fifty, one and one, respectively.
Source: GHAA's Annual HMO Industry Surveys

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[23] For each of the periods of 1986-1987 and 1987-1988, the significance of the difference of the means was tested using a paired *t*-test. The changes in days per 1,000 enrollees, discharges per 1,000 enrollees, or average length of stay for the elderly, under-65, or total enrollee populations were not significant at the 0.05 level.

[24] This observation was reported in previous analysis in *HMO Industry Profile (1989 Edition), Volume 2: Utilization Patterns, 1987* (Washington, D.C.: GHAA, 1988), p. 14-15. On the basis of the paired *t*-test, the 1986 to 1987 increases in encounters per member per year of the under-65 group and all enrollees had a probability of occurring by chance of 0.03 and 0.02, respectively. Encounters per member per year for the elderly had a probability of occurring by chance of 0.08 (near significant).

[25] See *HMO Industry Profile (1988 Edition), Trends 1985-1986* (Washington, D.C.: GHAA, 1988), p. 14-15.

Exhibit 2
Summary of Utilization Measures 1986–1987 and 1987–1988, Plans Reporting Consecutive Years, by Enrollee Age

A. Plans Reporting in Both 1986 and 1987

	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
	1986		1987	1986		1987	1986		1987
Discharges/1,000	88.0		90.7	80.8		80.7	243.9		263.8
(N)		(110)			(82)			(53)	
Days/1,000	418		423	346		349	1,668		1,750
(N)		(118)			(85)			(57)	
LOS	4.7		4.8	4.4		4.4	6.8		7.1
(N)		(112)			(81)			(55)	
Encounters/Member/Year[2]	4.7		5.1	4.5		5.3	8.5		9.7
(N)		(92)			(52)			(44)	

B. Plans Reporting in Both 1987 and 1988

	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
	1987		1988	1987		1988	1987		1988
Discharges/1,000	90.7		88.5	81.2		79.5	237.9		241.1
(N)		(158)			(103)			(79)	
Days/1,000	422		423	350		347	1,666		1,650
(N)		(169)			(106)			(81)	
LOS	4.7		4.7	4.5		4.4	7.1		6.9
(N)		(160)			(105)			(81)	
Encounters/Member/Year[2]	4.9		4.9	5.0		4.8	9.6		9.6
(N)		(127)			(74)			(64)	

Notes:

1. Data were trimmed for 1986, 1987, and 1988. Values greater than three standard deviations from the mean or values less than a minimum threshold were excluded from analysis. The threshold for discharges/1,000, days/1,000, LOS and encounters/member/year were five, fifty, and one, respectively.

2. Between year differences for encounters/member/year were significant at 0.05 level for the under 65 and all enrollee populations.

Source: GHAA's Annual HMO Industry Surveys

V. UTILIZATION RATES BY PLAN CHARACTERISTICS

This section reviews the differences in utilization rates for established plans by model type, region, size, and plan age. Measures of inpatient utilization were found to vary significantly by plan characteristics.[26] Discussion focuses on established plans. Tables 3,5,6, and 7 provide utilization statistics by plan characteristics for all plans and for established plans. Summary statistics are provided for new plans.

Inpatient Utilization

For the under-65 population, inpatient utilization rates in plans varied by model type, region, size, and plan age (Figure 5). (See Table 3 for detailed statistics on utilization rates by plan characteristics.) Differences in inpatient days per 1,000 enrollees were statistically significant for region and plan size. Differences in discharges per 1,000 enrollees were

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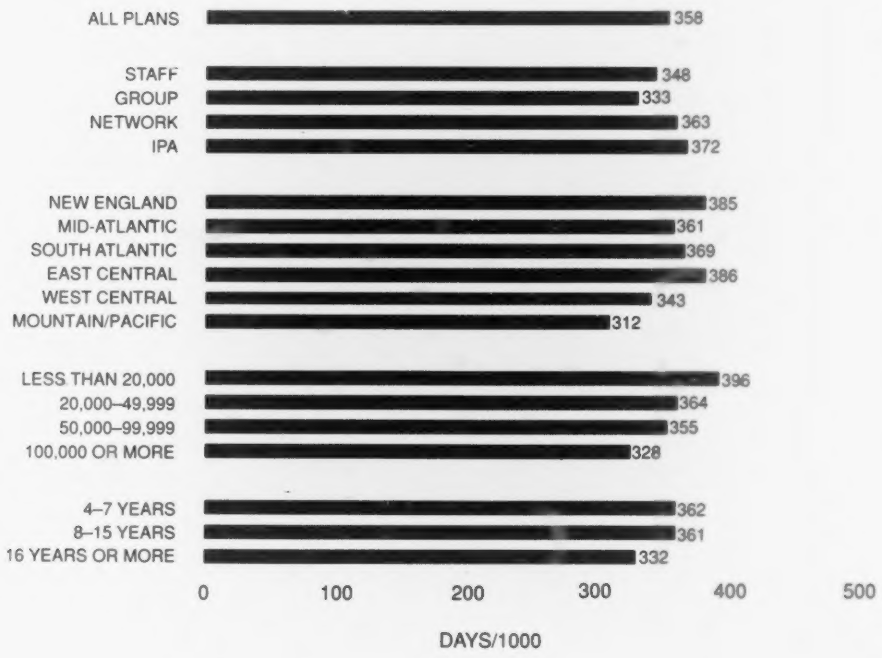
[26] Statistical significance for this section was assessed by the *F*-value based on a one-way analysis of variance. Significance refers to a 0.05 level or better. Statistical significance indicates only that there were statistically significant differences among the means for the variable across the categories. The *F*-test would indicate, for example, whether model type has a statistically significant effect on utilization, but not which rates for particular models differed from each other. To provide some information on this latter point, multiple comparison tests (Tukey's at the 0.05 level) were performed. Differences close to meeting the 0.05 significance test are pointed out because the relatively small number of plans considered here can contribute significantly to variability. In this situation, differences close to significant are useful to note.

Figure 5
Mean Inpatient Days Per 1,000 Enrollees Under Age 65, by Plan Characteristics, Plans Over Three Years Old, 1988



SOURCE: GHAA's Annual HMO Industry Survey

Exhibit 3

Average Days Per 1,000 Enrollees Under 65 by Plan Age and Model Type, 1988

A. Unweighted Analysis

Plan Age	Group/Staff	Network/IPA	IPA
1–4	375	374	373
(N)	(11)	(48)	(42)
5–8	333	367	362
(N)	(20)	(40)	(33)
9+	335	371	388
(N)	(37)	(28)	(17)
Total	341	371	372
(N)	(68)	(116)	(92)

B. Weighted Analysis

Plan Age	Group/Staff	Network/IPA	IPA
1–4	334	388	391
(N)	(11)	(48)	(42)
5–8	334	367	366
(N)	(20)	(40)	(33)
9+	285	348	370
(N)	(37)	(28)	(17)
Total	291	364	373
(N)	(68)	(116)	(92)

Source: GHAA's Annual HMO Industry Survey

statistically significant for plan size and plan age. Differences in average length of stay were statistically significant for region and plan size.[27]

For the elderly, inpatient utilization rates varied by region but not by model type, plan size, or plan age. Differences in inpatient days per 1,000 enrollees were statistically significant by region.[28]

These differences are discussed in detail below.

Variation by Model Type

Although group and staff model plans had lower rates of inpatient use than networks and IPA models for the under-65 population, no statistically significant differences in inpatient utilization were found for either the under-65 population or the elderly.[29] This finding differs from the findings in 1987, when days per 1,000 and discharges per 1,000 were significantly higher for IPAs than for both staff and group model plans.[30]

Using data obtained from state insurance commissioners, American International Healthcare (AIH), a consulting group, came to the conclusion that differences between IPAs and group/staff model plans were attributable to the youth of IPAs. Using an analysis of utilization rates by model type and plan age for the under-65 population, they found similar utilization rates among IPAs and other models for mature plans (i.e., those operational before 1980).[31]

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[27] Differences in days per 1,000 for enrollees under 65 by region and plan size were significant. The *F*-value for days per 1,000 by region had a probability of 0.0002; for plan size, the probability that the differences occurred by chance was 0.04. Differences in discharges per 1,000 for enrollees under 65 were significant for plan size and plan age categories. The *F*-value for under-65 population discharges per 1,000 enrollees by plan size had a probability of 0.04. The *F*-value for under-65 population discharges per 1,000 enrollees by plan age had a probability of 0.04. Differences in average length of stay varied significantly by region and plan age. The *F*-value for average length of stay in the under-65 population by region had a probability of occurring by chance of 0.002. The *F*-value for average length of stay in the under-65 category for plan size had a probability of occurring by chance of 0.002.

For the under-65 population, the *F*-values for differences across model types for discharges per 1,000 and average length of stay were near significant at 0.09 and 0.07, respectively.

[28] Differences in days per 1,000 enrollees for the elderly by region were significant. Differences in days per 1,000 enrollees for the elderly by plan size had borderline significance. The *F*-value for days per 1,000 by region had a probability of 0.048. The *F*-value for the elderly by plan size had a probability of 0.086. Differences in average length of stay for the elderly population by region and plan size were significant. The *F*-value for average length of stay by region had a probability of 0.001. The *F*-value of average length of stay by plan size had a probability of 0.027.

[29] Differences across model type for discharges per 1,000 enrollees and average length of stay were near significant for the under-65 population. The *F*-value for discharges per 1,000 enrollees was 0.093. The *F*-value for average length of stay was 0.066. Differences in average length of stay for the total enrollee population were near significant with an *F*-value of 0.060. No other inpatient utilization measures showed significant or near-significant differences across the four model types.

[30] See GHAA's *HMO Industry Profile, Volume 2: Utilization Patterns*, 1989 edition.

[31] See AIH's press release, "New Study Finds IPA Model HMOs Successful at Limiting Hospital Usage" (American International Healthcare, February 1990).

To consider this issue, GHAA replicated the AIH analysis using the data obtained for 1988 from respondent plans. The results are shown in Exhibit 3, which includes both an unweighted analysis and an analysis weighted by the number of enrollees under 65 for the same period. The plan age groups used mirror the AIH analysis; because the number of older IPA model HMOs is small, no finer distinctions were made. The weighted analysis indicates that IPA utilization rates decrease with increasing plan age. However, differences between IPAs and networks and group/staff model plans persist even among the older plans. This analysis includes fewer plans than AIH's, a difference that could explain the discrepancy in the results.

Exhibit 4 shows an analysis of the changes in inpatient utilization for plans reporting in both 1987 and 1988 by enrollee age and model type. Generally, inpatient measures for group and staff model plans have remained constant over the 1987-1988 period for the under-65 population. However, inpatient days per 1,000 for group and staff model plans declined for the elderly. Inpatient days per 1,000 enrollees also consistently decreased for IPA model plans in each of the three populations.[32] These results are consistent with the view that a plan's experience leads to improved utilization management, although organizational features still may make the task of management in an IPA more difficult than in a group or network model plan.

Variation by Region

Rates of inpatient use varied by region in 1988 as they have previously. For the under-65 population, inpatient days per 1,000 enrollees and the average length of stay varied significantly according to region. For the elderly, inpatient days per 1,000 enrollees differed significantly by region.

For the under-65 population, inpatient utilization rates for HMOs in the Mountain/Pacific region were lower than for other regions.[33] In the Mountain/

Exhibit 4
Summary of Inpatient Utilization Measures 1987–1988,
Plans Reporting Both Years, by Model Type[1]

	Group/Staff			Network/IPA			IPA Only		
	1987	1988	Change	1987	1988	Change	1987	1988	Change
All Enrollees									
Discharges/1000	89.5	87.2	(2.0)	91.4	89.1	(2.3)	93.6	90.4	(3.2)
(N)	(53)			(105)			(84)		
Days/1000	436	449	13	415	410	(5.0)	429	417	(12)
(N)	(57)			(112)			(88)		
LOS	4.9	5.0		4.7	4.6	(0.1)	4.7	4.7	0.0
(N)	(53)			(107)			(86)		
Enrollees < 65									
Discharges/1000	76.8	74.3	(2.5)	84.6	83.3	(1.3)	85.4	82.6	(2.8)
(N)	(44)			(59)			(46)		
Days/1000	326	326	0	367	362	(5.0)	379	362	17
(N)	(44)			(62)			(47)		
LOS	4.4	4.5	(0.1)	4.5	4.4	(0.1)	4.5	4.5	0.0
(N)	(44)			(61)			(48)		
Enrollees ≥ 65									
Discharges/1000	251.4	251.3	(0.1)	227.1	233.1	6.0	231.4	241.8	10.4
(N)	(35)			(44)			(33)		
Days/1000	1,769	1,713	(56)	1,584	1,599	15	1,661	1,668	7
(N)	(36)			(45)			(34)		
LOS	7.2	6.9	(0.3)	7.0	7.0	0.0	7.1	7.1	0.0
(N)	(35)			(46)			(35)		

Notes:
1. Data were trimmed for both 1987 and 1988. Values greater than three standard deviations from the mean or values less than a minimum threshold were excluded from analysis. The threshold for discharges/1,000, days/1,000, and LOS were five, fifty, and one, respectively.
Source: GHAA's Annual HMO Industry Surveys

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[32] Using a paired *t*-test, none of the decreases in days per 1,000 enrollees for IPA model plans were significant. However, the *t*-value of 0.113 for the difference in days per 1,000 enrollees for the under-65 population was near significant at the 0.10 level.

[33] Differences in inpatient days per 1,000 enrollees and the average length of stay were significant at the 0.01 level. Using the Tukey multiple comparison test, the mean for days per 1,000 enrollees in the Mountain/Pacific region is significantly lower than the mean for the East Central region. For average length of stay, the mean for the Mountain/Pacific region was significantly lower than the means for the New England, Mid-Atlantic, South Atlantic, and the East Central regions. Differences in discharge rates by region were not statistically significant.

Pacific region, HMOs had an average inpatient utilization of 312 days per 1,000 enrollees, approximately 13% lower than the average for all established plans. On the average, the highest rates for inpatient use (inpatient days per 1,000 enrollees) were in the East Central region (386 inpatient days per 1,000). Differences in inpatient days per 1,000 enrollees across regions may be mainly attributable to differences in the average length of stay.

For the under-65 population, average length of stay in the Mountain/Pacific region was 4.0 days, which compares with 4.4 days for all established plans. The highest average length of stay was reported by the New England region (5.0 days). The Mountain/Pacific region also had a lower average discharge rate per 1,000 enrollees; the average plan discharge rate per 1,000 was 76.9 per 1,000 enrollees, versus 80.9 per 1,000 enrollees for all established HMOs. However, differences in discharge rates by region were not statistically significant.

For the elderly population, the lowest reported mean inpatient days per 1,000 enrollees, discharges per 1,000 enrollees, and average length of stay were in the Mountain/Pacific region. As with the under-65 population, average length of stay for the elderly also varied significantly across regions.[34] Variation in days per 1,000 and discharges per 1,000 were not significant.

Overall, the lower utilization rates for HMOs in the Mountain/ Pacific region mirror similar differences in the aggregate utilization statistics for the entire U.S. population.[35]

Variation by Plan Size

Generally, larger plans had lower rates of inpatient utilization than did smaller plans for the under-65 population. Inpatient days per 1,000 and discharges per 1,000 enrollees decreased with increasing plan size. The lowest averages for days per 1,000 (328) and discharges per 1,000 (74.2) were reported by plans in the 100,000 size category. However, for length of stay, an opposite pattern exists, with the reported values generally higher for larger plans. Plans in the 20,000 to 49,999 size category reported the lowest average length of stay (4.3).[36]

For the elderly population, the average length of stay increases with increasing plan size. As observed for the under-65 population, inpatient days per 1,000 enrollees were higher for larger plans. However, no clear patterns were observed for discharges per 1,000 enrollees. It is possible that the relation of plan size and inpatient utilization could be related to the tendency of larger (and usually older) plans to have a larger proportion of older patients that require greater use of inpatient resources.[37]

Variation by Plan Age

As discussed earlier, utilization was related to plan age differently for the under-65 population and the elderly. Overall, utilization for the elderly is lower for younger plans than older plans. Conversely, the older plans had lower utilization for the under-65 population.

For the under-65 population, discharges per 1,000 enrollees were significantly different by plan age. Differences in average length of stay or days per 1,000 enrollees by plan age for the under-65 population were not statistically significant.[38] Discharge rates for the plans with 16 or more years of experience were 70.6 per 1,000 enrollees, which is considerably lower than the average discharge rate for all established plans (80.9 per 1,000 enrollees). Although these differences translated into lower days per 1,000 for the under-65 population, the differences by plan age were not statistically significant.

Similar patterns apply to new plans. Overall, the data indicate that both inpatient days per 1,000 enrollees and discharge rates for the elderly decrease with increasing plan age. Again, average length of stay shows no significant pattern.

No measures of utilization for the elderly differed greatly by plan age although the same differences applied.[39] The older plans had the highest values for inpatient days per 1,000 and average length of stay for the elderly population. Comparison of new plans and established plans preserves the inconsistency with the pattern observed for the under-65 population. New plans had lower utilization rates than established plans.

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[34] Using the Tukey comparison test, the average length of stay in the Mid-Atlantic region was significantly higher than in the Mountain/Pacific region. For the elderly in established plans in the Mountain/Pacific region, the average length of stay was 6.1 days. The average length of stay for the elderly in established plans in the Mid-Atlantic region was 7.9 days.

[35] See, for example, Table 70 in *Health United States, 1989*, Department of Health and Human Services Publication (PHS) 90-1232 (Hyattsville, Md., March 1990).

[36] Using the Tukey comparison test for the population of enrollees under 65, days per 1,000 enrollees and discharges per 1,000 enrollees were found to be significantly higher for the 0-19,999 plan size category than for the 100,000 + plan size category. In contrast, average length of stay for the 50,000-99,999 and 100,000 + categories were significantly higher than average length of stay for the 20,000-49,999 category.

[37] See Chapter 8 for further discussion of the relation of plan age and the demographics of HMO enrollees.

[38] The Tukey multiple comparison test indicates that discharges per 1,000 for the plans operational for 8-15 years were, significantly higher than those of the oldest plans (16 years' experience or more).

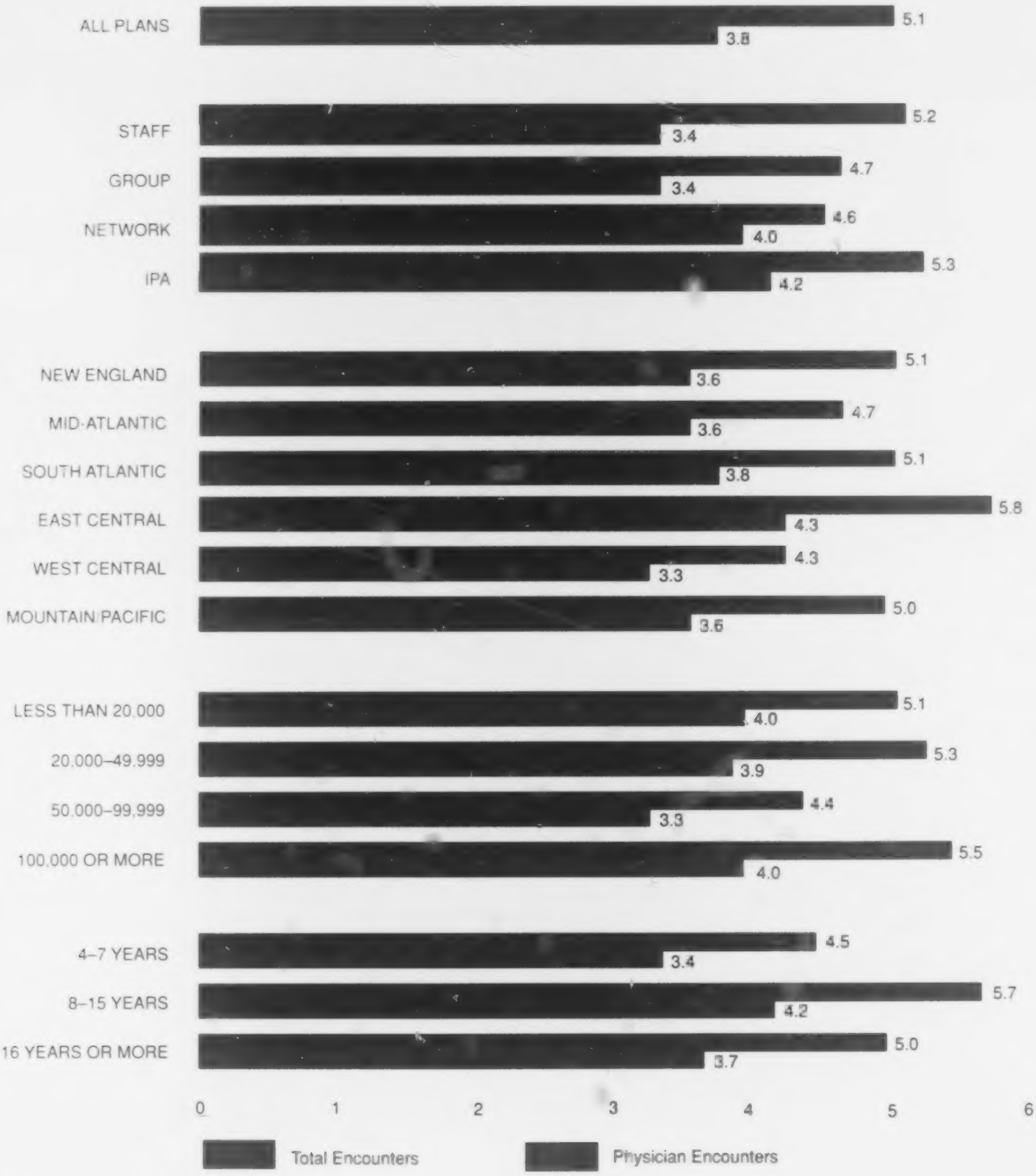
[39] For the elderly, none of the measures for inpatient utilization were found to vary significantly across plan age. Average length of stay had the lowest *F*-value (0.20).

Ambulatory Utilization

Figure 6 shows the mean total encounters per member per year and physician encounters per member per year for enrollees under 65 in established plans. (See Tables 5-7 for further detail.) Total encounters per member per year for the under-65 population varied significantly by region, plan size, and plan age. Physician encounters per member per year for the under-65 population varied significantly by model type and plan age.[40]

Figure 6

Mean Total Encounters Per Member and Mean Physician Encounters Per Member Under 65 Years Old Per Year, by Plan Characteristics, Plans Over Three Years Old, 1988



SOURCE: GHAA's Annual HMO Industry Survey

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[40] The *F*-value for total encounters per member per year for the under-65 population across the six regions was 0.04. The *F*-value for total encounters per member per year for the under-65 population across the three age groups was 0.0017. The *F*-value for physician encounters per member per year for the under-65 population across the three age groups was 0.005. The *F*-value for physician encounters per member per year for the under-65 population across the four model types was 0.011.

For the under-65 population, HMOs in the East Central region averaged 5.8 total encounters per member per year compared with 5.1 for all established plans. The lowest average number of total encounters was 4.3 for plans in the West Central region. Plans with 100,000 enrollees or more had the highest average number of encounters per member per year (5.5), but the relationships of plan size and number of encounters were inconsistent. (The lowest average was reported by plans with 50,000 to 99,999 enrollees.) The relationships of plan age and number of total encounters per member per year were also inconsistent. The highest average number of total encounters was reported by plans operational for 8-15 years.[41]

When physician encounters were examined by plan characteristics, staff and group model HMOs had a lower average number of physician encounters per year than network and IPA model HMOs, though the total number of encounters per member per year is not significantly different. This result may be due to a higher usage by staff and group model HMOs of non-physician providers, such as nurse practitioners or physician assistants, or it may be the result of different reporting methods. The lowest average number of physician encounters (3.3) was reported by the West Central region, mirroring the results for total encounters per member per year. As for total encounters per member per year, the relation of physician encounters per member per year is inconsistent for plan age and plan size.[42]

For the elderly, total encounters per member per year varied significantly by plan size and plan age. Physician encounters per member per year varied significantly by plan size and plan age.[43]

For the elderly, the relation of total encounters per member per year and plan size was inconsistent, with the highest averages being reported by the largest (100,000 + enrollees) and smallest (0 to 19,999 enrollees) plans. The relation of total encounters per member per year and plan age was also inconsistent.[44]

For the elderly, plans in the Mid-Atlantic reported the lowest average number of physician encounters per member per year; 6.1 versus 7.2 physician encounters per member per year for all established plans. As discussed for total encounters, the relation of physician encounters per member per year to plan age and plan size was inconsistent.[45]

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[41] Using the Tukey multiple comparison test, differences between groups were tested for statistical significance. The average number of total encounters per member per year in the East Central Region (5.8) was significantly greater than the average for the West Central Region (4.3). The average number of total encounters per member per year for plans in the 100,000 + enrollment category (5.5) was significantly higher than for plans in the 50,000-99,999 category (4.4). The average number of total encounters per member per year for plans operational for 8 to 15 years (5.7) was significantly higher than the encounter rate for plans operational for 4 to 7 years (4.5).

[42] Using the Tukey multiple comparison test, the average number of physician encounters per member per month for the under-65 population was significantly higher for IPA model plans than for staff and group model plans. The average number of physician encounters per member per month for plans operational for 8 to 15 years was significantly higher than the average for plans operational for 4 to 7 years.

[43] For the elderly population, the *F*-value for variation of total encounters per member per year across the four plan size categories was 0.019. The *F*-value for variation of total encounters per member per year across the three age groups was 0.027. The *F*-value for variation of physician encounters per member per year across the four plan size categories was 0.027. The *F*-value for variation of physician encounters per member per year across the three age groups was 0.005.

[44] For the elderly, the average number of encounters per member per year is significantly higher for plans with 100,000 enrollees or more than for plans with enrollment in the 50,000 to 99,999 category. The average number of encounters per member per year is significantly higher for plans operational for 8 to 15 years than for plans operational for 4 to 7 years.

[45] For the elderly, the average number of physician encounters per member per year was significantly higher for plans in the 100,000 size category than for plans in the 50,000 to 99,999 category. The average number of physician encounters per member per year for plans operational for 8 to 15 years was significantly higher than the encounter rate for plans operational for 4 to 7 years.

VI. CAESAREAN SECTIONS AS A PERCENTAGE OF TOTAL DELIVERIES

This section discusses caesarean section rates for HMOs. This is the first year that GHAA's *Annual HMO Industry Survey* has requested procedure-specific information. Generally, procedure-specific information is difficult to obtain because many plans cannot report such data in summary form and the information is difficult to interpret without controlling for case mix. We chose caesarean rates as a pilot for measuring procedural level utilization because they are currently of national interest and are likely to be monitored by plans.[46]

Approximately 74% of the plans reporting caesarean rates were network or IPA model plans; as a result, these data are best considered by model type rather than in total. On average, the network and IPA caesarean rates were higher than the rates for group and staff model HMOs. For established plans, the median caesarean rate for network and IPA model HMOs was 26%. The median caesarean rate for group and staff model HMOs was 20% (See Exhibit 5 and Table 8). A total of 127 established plans provided caesarean section rates.

Caesarean rates for the general population vary by region. This variation is also apparent for HMOs. However, rates are more consistent across the regions for group and staff model plans than for network and IPA plans. Both types of models have higher rates in the South Atlantic, the region that national data show to have the highest rates.[47] The network and IPA rates were close to the national average of 24.4%.[48] Group and staff model rates were lower. However, the U.S. rate may understate the rate for the commercially insured population, which may have higher rates than other populations.[49]

The distribution of the reported caesarean rates also was broader for network and IPA model plans than for group and staff models (Figure 7). Twenty-three percent of the network and IPA plan rates were in the 16 to 20% range, 26% were in the 21 to 25% range, 32% were in the 26 to 30% range, and 18% were greater than or equal to 31%. In contrast, the rates of 72% of the group and staff model plans were clustered in the 16 to 25% range. Hence

Exhibit 5
Caesarean Section Rates
Median Percent HMO Deliveries, 1988

	All Plans*	Group/Staff	Network/IPA
All Regions	24%	20%	26%
New England	22%	20%	25%
Mid-Atlantic	24%	**	27%
South Atlantic	30%	26%	30%
East Central	21%	20%	22%
West Central	29%	**	29%
Mountain/Pacific	22%	20%	25%

* Plans over three years; 74% reporting were IPAs.
**Too few cases.
Source: GHAA's Annual HMO Industry Survey

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[46] For recent articles concerning HMOs and caesarean sections, see Selma M. Taffel, et. al., "Trends in the United States Cesarean Section Rate and Reasons for the 1980-85 Rise" *American Journal of Public Health*, vol 77, No. 8, (August 1987); DErek van Amerongen, "Vaginal Birth After Caesarean Section in an HMO," *HMO Practice* (May/June 1989):104-107; Bruce L. Flamm, "America's Most Common Operation: Implications for HMOs," *Ibid.*:77-78; Norbert Gleicher, "A Successful Program to Lower Caesarean-Section Rates," *New England Journal of Medicine*, vol. 319, no. 23 (December 8, 1988):1511-1516; Frederick C. Battaglia, "Reducing the Caesarean-Section Rate Safely," *Ibid.*:1540-1541; Evelyn Gilbert, "Unnecessary C-Sections Hit Companies, Patients," *National Underwriter* (January 22, 1990):16-17.

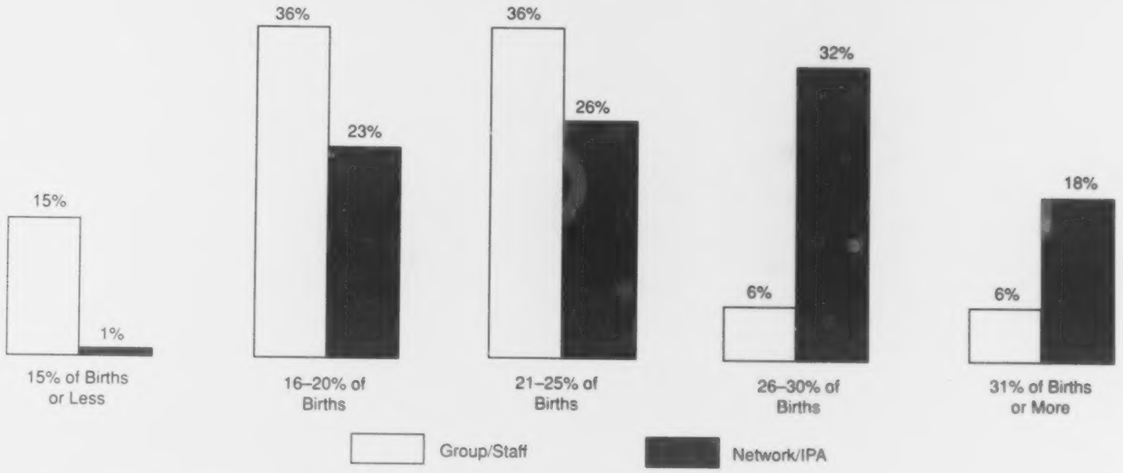
For commentary on the development of caesarean section as a policy concern, see Emily Friedman, "Of Policy and a Procedure: How C-Sections Became a Consumer Issue," *Utilization Review* (March 1, 1990):4-7; and Elizabeth Sternberg, "Unsolved Mystery: The Case of the Ideal Caesarean Section Rate," *Target Quality*, Maryland Hospital Association (May 1990):2-8.

[47] See Lynn Silver and Sidney Wolff, "Unnecessary Caesarean Sections: How to Cure a National Epidemic," Public Citizen Health Research Group, 1989.

[48] Data for 1987 indicate that the national caesarean section rate was 24.4%. Personal communication, United States Center for Health Statistics, May 1990.

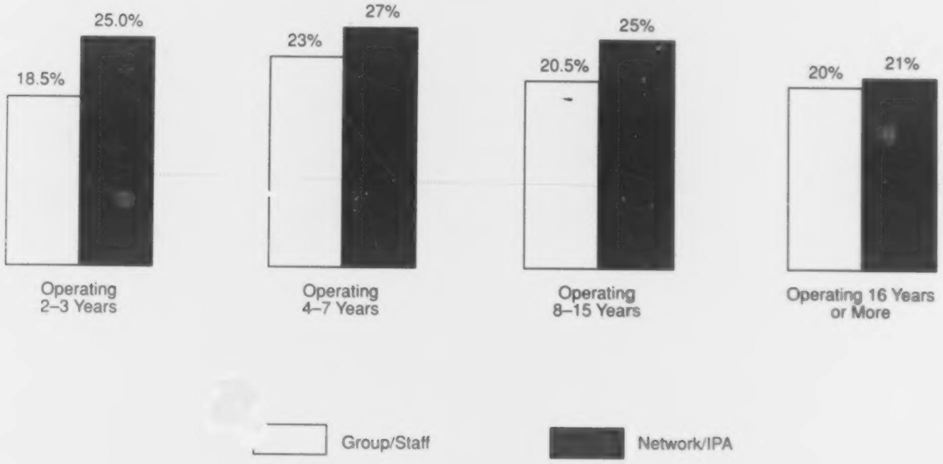
[49] See Elizabeth Sternberg, "Unsolved Mystery - The Case of the Ideal Cesarean Section Rate," *Target: Quality*, (Maryland Hospital Association, May 1990)

Figure 7
Distribution of Caesarean, Section Rates as a Percentage of Deliveries, Plans Over Three Years Old



SOURCE: GHAA's Annual HMO Industry Survey

Figure 8
Caesarean Section Rates, Median Percentage of HMO Deliveries, by Plan Age, 1988



SOURCE: GHAA's Annual HMO Industry Survey

the distributions overlap, but there is more variability for the network and IPA models.

This difference in distribution of the rates could be related to the experience level of plans. Analysis of established plans indicates that network and IPA model plans that have been in operation for 16 or more years reported the lowest median of the rate for caesarean sections (21%). The median rate reported by the oldest network and IPA plans is roughly equivalent to the rates reported for group and staff plans (Figure 8).[50] On the other hand, no consistent association between plan age and the caesarean section rate was found. Hence, the results for plans operational for 16 or more years could be a random occurrence, particularly given the small number of plans involved.

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[50] For network and IPA plans, the median caesarean section rates for the 16+ ,8 to 15, 4 to 7, and 3 or less plan age groups was 25.0% (n = 33), 27.0% (n = 51), and 24.5% (n = 48), respectively. For established staff and group plans, the median rates for the 16+, 8 to 15, 4 to 7 plan age groups were 20.0% (n = 10), 20.5% (n = 14), 23.0% (n = 9), and 18.5% (n = 6).

VII. UTILIZATION BY MEDICARE AND MEDICAID ENROLLEES

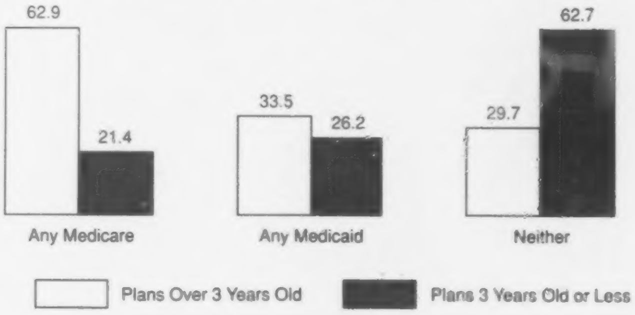
This section compares utilization rates for Medicare and Medicaid enrollees with those for other enrollees in HMOs. Because of their focus on the elderly, the disabled, and the poor, there has been considerable interest in these programs. HMO involvement with these programs has grown steadily although considerable barriers continue to exist.

The enrollment of Medicare and Medicaid beneficiaries in HMOs has been a relatively recent phenomenon.[51] Although Medicare has provided limited HMO options since its inception and expanded the options in the 1972 Social Security amendments, the financing mechanisms were inconsistent with the way that most HMOs deliver care. As a result, Medicare participation by HMOs was not widespread until the 1980s, when first demonstrations and then legislative changes (in the Tax Equity and Fiscal Responsibility Act [TEFRA] of 1982) allowed HMOs to participate in Medicare on a full-risk basis. Statutory changes to federal Medicaid law in 1981 also enhanced the ability of HMOs to participate in that program.

In December 1988, 1.8 million Medicare beneficiaries were enrolled in HMOs; over 50% were enrolled under the TEFRA risk-based option, and the rest were enrolled under older HMO payment options.[52] According to June 1989 data, 847,403 Medicaid beneficiaries were enrolled in federally qualified HMOs, or state qualified HMOs and 273,920 enrollees were in other prepaid health plans. [53]

For the established plans responding to these questions, 63% had Medicare enrollees and 34% had Medicaid enrollees (Figure 9).[54] Those plans participating in the Medicare program had an average of 11,508 Medicare enrollees, representing a mean of 10% of the total enrollment in these plans. The average Medicaid enrollment was 11,228 representing a mean of 19% of total enrollment (Figure 10). (See Table 9 for further detail.)

Figure 9
Medicare and Medicaid Enrollment in HMOs by Plan Age (in Percentages), 1988



SOURCE: GHAA's Annual HMO Industry Survey

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[51] For a review of the history of HMO involvement with the Medicare program, see Kathryn M. Langwell and James P. Hadley, "Capitation and the Medicare Program: History, Issues and Evidence," *Health Care Financing Review*, 1986 Annual Supplement, p. 9-20. For a review of HMO involvement with the Medicaid program, see Deborah A. Freund and Edward Neuschler, "Overview of Medicaid Capitation and Case-Management Initiatives," *Health Care Financing Review*, 1986 Annual Supplement, p. 21-30.

[52] In December 1988, there were 1,062,712 Medicare HMO enrollees under the TEFRA risk option; 55,957 under older risk options; 131,925 under cost-reimbursable options; 16,206 under demonstration options; and 539,205 under health care prepayment plans (HCPP) and group practice prepayment plans. Personal communication, Office of Prepaid Health Care, Division of Contract Administration, Health Care Financing Administration, Department of Health and Human Services.

[53] As of June 30, 1989, there were 2,519,777 enrollees in Medicaid programs: 1,398,454 enrollees in health insuring organizations (HIOs), 521,392 enrollees in federally qualified HMOs, 326,011 enrollees in state-defined HMOs, and 273,920 enrollees in other prepaid health plans. See *Report on Medicaid Enrollment in Capitated Plans as of June 30, 1989*, Health Care Financing Administration, Medicaid Bureau, Medicaid Managed Care Office (June, 1990).

[54] The survey did not ask plans to specify the particular program option under which Medicare enrollees were served by the HMO (e.g., TEFRA risk basis, TEFRA cost basis, or HCPP).

Figure 10
Medicare and Medicaid Enrollees in HMOs in Relation to Total HMO Enrollment, by Plan Age, 1988

Figure 10a
Mean Number of Medicare and Medicaid Enrollees (for Plans Participating in These Programs) by Plan Age, 1988

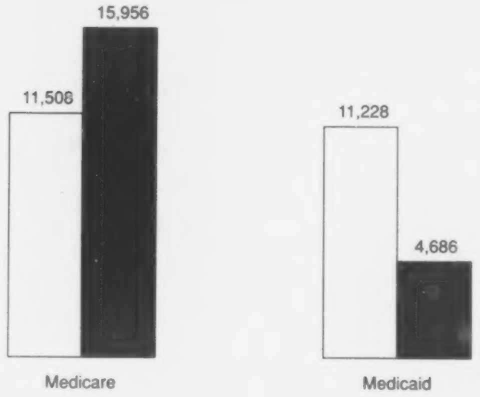
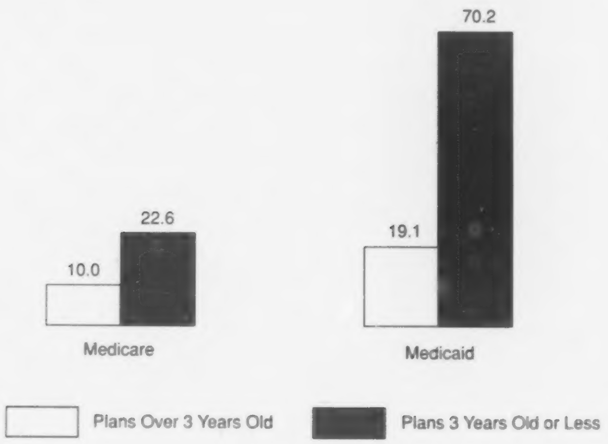


Figure 10b
Mean Percent of Total Enrollment of Medicare and Medicaid (for Plans Participating in These Programs) by Plan Age, 1988



SOURCE: GHAA's Annual HMO Industry Survey

New plans were considerably less likely to be involved in the Medicare or Medicaid programs. However, those that participated were likely to have a large proportion of their enrollment devoted to the program(s). Of the new plans, 63% were not involved in either program; 21% were involved with Medicare and 26% with Medicaid. New plans participating in either program tend to have a large proportion of their enrollment in either Medicare or Medicaid. As a mean percentage of total enrollment, the Medicare enrollment is greater for new plans than for established plans (23% versus 10%, respectively). For those new plans involved with the Medicaid program, the percentage of their enrollment in this program exceeds that of the established plans (70% versus 19%, respectively). Many of these new plans serving Medicaid enrollees may have been established exclusively for this purpose. For participating new plans, Medicare and Medicaid combined comprise 63% of total enrollment. (Table 9.)

Utilization patterns displayed in Figure 11 compare rates for Medicare and Medicaid enrollees with rates for all enrollees and enrollees under 65. Only data from HMOs reporting values for Medicare enrollees were used to calculate the means for the two comparison populations. The comparison is restricted to established plans because they have the greatest involvement with these programs. Values for the elderly are roughly equivalent to the values reported for the Medicare population.[55]

Figure 11 shows the inpatient days per 1,000 enrollees, discharge rates, average length of stay, and ambulatory encounter rates for Medicare and Medicaid enrollees in HMOs, comparing these rates with those for the under-65 population and all enrollees for plans with Medicare enrollment. (See Table 10-11 for detailed statistics on Medicare and Medicaid utilization.) The differences are somewhat expected given the populations served by Medicare (elderly and disabled individuals) and Medicaid (low-income individuals, with HMO involvement heavily emphasizing women and children in the Aid to Families with Dependent Children [AFDC] program).

Overall, utilization rates for the Medicare population are higher than those for other populations. Established plans that served the Medicare population provided an average of 1,967 inpatient days of care per 1,000 enrollees, representing 275.2 discharges per 1,000 enrollees and an average length of stay of 7.0 days. Medicare enrollees in HMOs averaged 9.1 total encounters per member per year and 7.2 physician encounters per year. On average, physician encounters comprised 80% of all encounters for Medicare enrollees.

Rates of inpatient days per 1,000 Medicare enrollees were significantly lower in the Mountain/Pacific region (1,721) than in the New England (2,388) and Mid-Atlantic (2,404) regions. For the Medicare population, differences in total encounters per member per year were near significant across plan size and plan age. Differences in physician encounters per member per year were near significant for plan size. The smallest average number of total encounters and physician encounters per member per year (7.5 and 6.1 respectively) was reported by plans in the 50,000 to 99,999 size category.[56]

Medicaid enrollees in HMOs used 515 inpatient days of care per 1,000 enrollees, which represents a discharge rate of 125.7 per 1,000 enrollees and an average length of stay of 4.2 days. Medicaid enrollees averaged 5.3 total encounters per member per year and 3.7 physician encounters per member per year. On average, physician encounters comprised 75% of all encounters. The number of physician encounters per member per year was significantly greater for the largest plans (4.6) than for plans with 50,000-99,999 enrollees (3.2).[57]

A variety of factors could explain the higher utilization rates for the Medicaid population compared with the general population. Because Medicaid enrollment largely consists of mothers and children under the AFDC eligibility category, it is likely that a larger proportion of that population in HMOs receives maternity care, a high intensity use of services. Medicaid enrollees also may be sicker, both because criteria for Medicaid eligibility include medical need and disability and because Medicaid beneficiaries are poor (a state associated with poorer health).[58] The Medicaid benefit package also tends to be more comprehensive (for example, a broader range of covered services and no copayments), which could affect utilization.

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[55] With analysis restricted to established plans reporting for both the elderly and the Medicare populations, average utilization for the elderly was as follows: 1,842 inpatient days per 1,000 enrollees, 259.0 discharges per 1,000 enrollees, an average length of stay of 7.0 days, and 9.1 encounters per member per year.

[56] For the Medicare population in established plans, inpatient days per 1,000 enrollees and average length of stay varied significantly across the six regional categories. The *F*-value for inpatient days per 1,000 was 0.002. The *F*-value for average length of stay was 0.001. Using the Tukey multiple comparison test, inpatient days per 1,000 and average length of stay were significantly higher in New England than in the West Central and Mountain/Pacific regions. Inpatient days per 1,000 and average length of stay were also higher in the Mid-Atlantic region than in the Mountain/Pacific region.

Variations across plan size and plan age groupings for the number of encounters per member per year were near significant. The *F*-value for variation across plan size was 0.085. The *F*-value for plan age was 0.056.

Variation across plan age for the number of physician encounters per member per year was near significant. The *F*-value for variation across plan age was 0.080.

[57] For the Medicaid population, variation in the number of physician encounters per member per year was significant across the four plan size categories, with an *F*-value of 0.022. Using the Tukey multiple contrast test, the mean number of physician encounters per member per year was significantly higher for plans in the 100,000+ category than for plans in the 50,000-99,999 category.

[58] Because of the particular issues involved in enrolling disabled and chronically ill populations in HMOs (e.g., breaking established care patterns, getting informed agreement to enroll, setting rates, and meeting the special care needs of these populations), most states have focused, at least initially, on enrolling the AFDC population rather than on the Supplemental Security Income population in HMOs.

Figure 11
Selected Utilization Rates for Medicare, Medicaid, Under Age 65, and All Enrollees, Plans Over Three Years Old, 1988

Figure 11a

Days Per 1,000 Enrollees, Plans Over Three Years Old by Enrollment Type: Medicare, Medicaid, Under Age 65, and All Enrollees

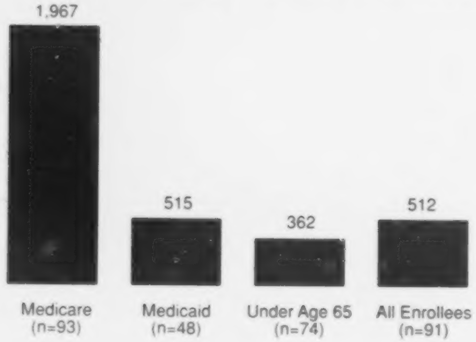


Figure 11b

Discharges Per 1,000 Enrollees, Plans Over Three Years Old by Enrollment Type: Medicare, Medicaid, Under Age 65, and All Enrollees

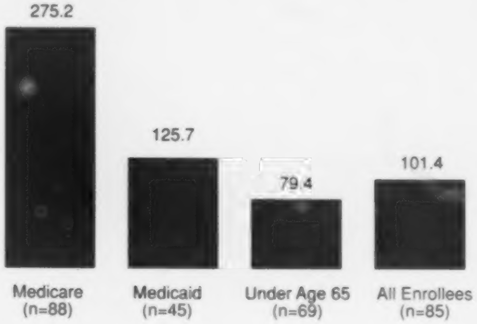


Figure 11c

Length of Stay, Plans Over Three Years Old by Enrollment Type: Medicare, Medicaid, Under Age 65, and All Enrollees

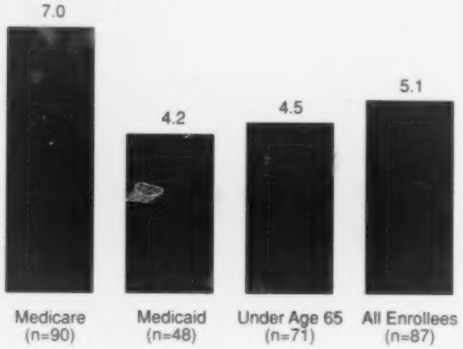


Figure 11d

Total Encounters Per Member Per Year, Plans Over Three Years Old by Enrollment Type: Medicare, Medicaid, Under Age 65, and All Enrollees

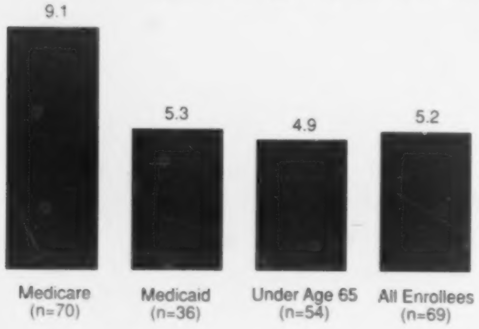
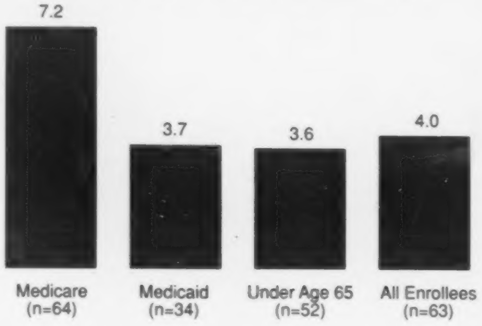


Figure 11e

Physician Encounters Per Member Per Year, Plans Over Three Years Old by Enrollment Type: Medicare, Medicaid, Under Age 65, and All Enrollees



Note: All Enrollees and Under 65 population values are restricted to the population of plans reporting that item for the Medicare population.
SOURCE: GHAA's Annual HMO Industry Survey

VIII. ENROLLMENT AND INPATIENT UTILIZATION BY AGE AND SEX

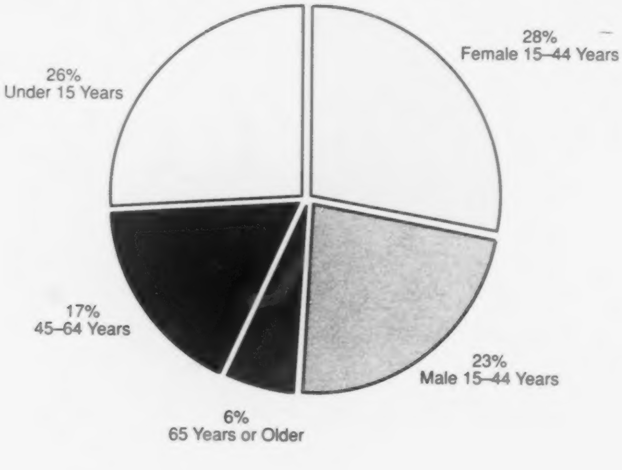
This section provides an overview of enrollment and utilization statistics by age and sex characteristics. Of all reporting plans, 165 provided full data on enrollment by age and sex. Forty plans provided full data for inpatient days per 1,000 enrollees by age and sex. Table 12 provides summary statistics for enrollment and utilization by enrollee age and sex characteristics. Table 13 provides mean enrollment percentages by enrollee demographic group and plan characteristics.

Enrollment Composition

On average, 51% of HMO enrollees in established plans were 15-44 years old in 1988 (Figure 12). Of all HMO enrollees, 28% were females in this age group. The second largest HMO enrollee population was children (0-14 years of age), representing 26% of the average established plan enrollment. The distribution of the under-15 age group in HMOs is equally divided between the sexes; 13% of all HMO enrollees are male children and 13% are female children. Combined, the two groups of under-45 enrollees comprise 77% of the average HMO enrollment; 36% of these enrollees are males and 41% are females. Enrollees 45 or older comprise the remaining 23% of enrollment; 17% are in the 45-to-64 age group and 6% are 65 or older.

Generally, the profiles of the U.S. population and the HMO enrollee population were similar, but HMOs were somewhat more likely to include children and younger adults, especially females of childbearing age (Figure 13). For the U.S. population, 26% were in the 0-14 age group (26% in established HMOs), 43% were in the 15-44 age group (51% in established HMOs), 19% were in the 45-64 age group (18% in established HMOs), and 12% were in the 65+ age group (6% in established HMOs). In established HMOs, the 15-44 age group (the largest group) was disproportionately female (55%) compared with the general population was (50% male and 50% female). Overall, the average HMO enrollee population

Figure 12
Mean Percent Enrollment, Plans Over Three Years Old, 1988



SOURCE: GHAA's Annual HMO Industry Survey

was 47% male and 53% female. This proportion was biased slightly toward females relative to the U.S. population (49% male and 51% female).[59]

Comparisons between the HMO population and the general population are influenced both by patterns of insurance coverage and selection among health benefit options. Women anticipating pregnancy may be attracted to HMOs because of the extensive coverage of maternity and pediatric care. The general population includes the uninsured and those in Medicaid (both of whom have unique demographic profiles) as well as those covered under indemnity insurance and other health coverage such as Medicare. The growth of the HMO-enrolled population is a recent phenomenon, and most HMOs chiefly serve employer accounts, as do indemnity plans, preferred provider organizations, and other private insurance plans.

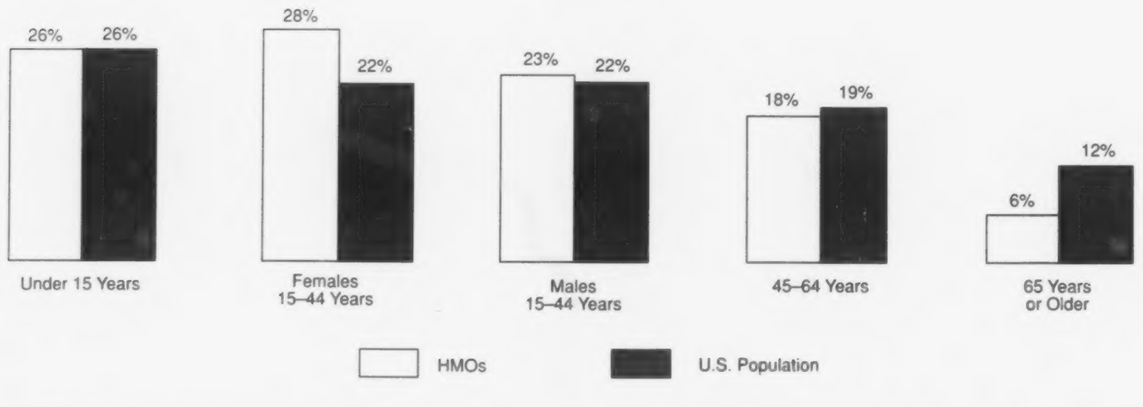
Reflecting this situation, the largest differences in the average profiles of established HMOs and the U.S. population occurred in the elderly (those over 65 years old). For established plans, 6% of the enrolled population was elderly, but approximately 12% of the resident population of the United States was elderly; however, this result is not unexpected. Most HMOs have historically focused on the employer market, which does not have a large elderly population. This pattern is beginning to change as enrollees reach retirement age and remain in their HMOs under available Medicare options. HMO participation in the Medicare program became more widespread only recently with the introduction of allowances for full risk contracting in 1985.

The composition of HMO enrollment by age group across plans of different characteristics is fairly uniform (Table 9). The largest variation is the percentage of elderly enrollment for new plans compared with established plans. New plans have a smaller percentage of elderly enrollees (2%) than established plans (6%). Generally, older and larger plans have a higher proportion of older (45+) enrollees than other plans (Figure 14). This finding is not surprising and probably reflects a core of continuously enrolled individuals who have aged within the plans. Hence, as HMOs mature, their populations may come to more closely resemble the demographics of the nation.

Inpatient Utilization

While only a limited number of plans provided age- and sex-specific utilization data, there is considerable interest in these data; hence, they are presented here. For established plans, female enrollees in the 15-44 age group (the largest segment of the HMO enrollee population) used 417.9 inpatient days per 1,000 enrollees. On average, male enrollees in this age group used 222.5 inpatient days per 1,000 enrollees.

Figure 13
Mean Percent Enrollment of HMOs Versus the Demographic Profile of the U.S. Population, 1988



SOURCE: GHAA's Annual HMO Industry Survey, U.S Census

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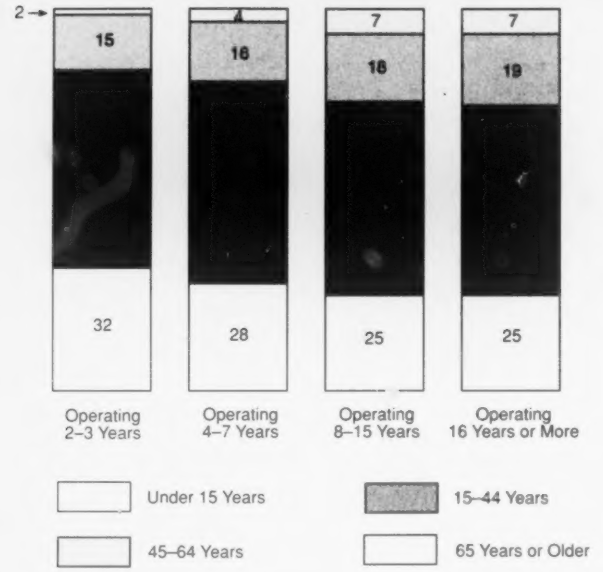
[59] Estimated percentages for the U.S. population segments are based on projections of population from Table 17 of the *Statistical Abstract of the United States, 1989*, 109th edition, p. 15. The reader may note a difference in the percentage enrollment figures appearing in this volume for the resident population compared with the figures in the 1989 edition of GHAA's *HMO Industry Profile*,Vol. 2: Utilization Patterns, 1987. This difference is due to a change in the data source used for calculation of percentages for the age groups. Calculations for resident population statistics for the 1989 edition were based on data from Table 1 of *Health United States, 1988*, Department of Health and Human Services Publication (PHS) 89-1232 (Hyattsville, Md., March 1989).

Figure 14

Mean Percent of Enrollment by Enrollee Age Group and Plan Age, 1988



SOURCE: GHAA's Annual HMO Industry Survey

In contrast, male children had higher utilization than female children. Male enrollees under 15 used 237.0 inpatient days per 1,000 enrollees compared with 201.1 inpatient days per 1,000 enrollees for females under 15.

Enrollees aged 45-64 used more care than all groups except the elderly. Male enrollees in this age group used 660.6 inpatient days per 1,000 enrollees. Female enrollees used 538.7 inpatient days per 1,000 enrollees. Among the elderly, male enrollees used more inpatient days than females, and both groups were the highest users in the plans. Elderly male enrollees used 1,492.2 inpatient days per 1,000 enrollees, relative to 1,146.4 for female enrollees in the same age group.[60]

For all age groups, both the male and female HMO enrollee inpatient utilization rates were substantially less than the aggregate (male and female combined) national rates for inpatient utilization. [61]

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[60] The reader may note that there is a significant difference in the inpatient days per 1,000 enrollees reported here and the overall rate reported previously in this text. This difference is primarily due to differences in the population of the plans surveyed. Overall, 41 plans reported age-specific days per 1,000 for the male population and 40 plans reported age-specific rates for the female population. For established plans, 40 reported age-specific days per 1,000 for the male population and 39 reported age-specific days per 1,000 for the female population.

[61] For children (Health United States, 1989 (see note 19 for full reference).

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GUIDE TO USING THE DETAILED TABLES

All detailed tables contain statistics for all responding plans and separate statistics for those plans with more than 3 years' operational experience. *Caution should be used in examining data in tables to be sure that the data used are for the desired plan age group.* Tables present data by plan age as either separate columns or as sequential rows of data. The data are ordered with totals first for all plans, followed by data for plans over 3 years of age.

Most tables provide separate statistics for plans of various characteristics. The characteristics are consistent across tables and include model, region, size, plan age, tax status, federal qualification status, and ownership.

Definitions used in arraying plans by these characteristics are given below.

MODEL TYPE (Defined in the questionnaire)

Plans were asked to identify which model best reflects the *predominant* components of the plan.

Staff: An organized prepaid health care system that delivers health services through a salaried physician group that is employed by the HMO unit.

Group: An organized prepaid health care system that contracts with one independent group practice to provide health services.

Network: An organized prepaid health care system that contracts with two or more independent group practices to provide health services.

IPA: An organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations of physicians in independent practice, and/or with one or more multispecialty group practices (but the plan is predominately organized around solo/single specialty practices) to provide health services.

REGION (GHAA-coded based on the state that the plan indicated had the largest share of its enrollment)

New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

Mid-Atlantic: New Jersey, New York, and Pennsylvania.

South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.

East Central: Alabama, Illinois, Indiana, Kentucky, Michigan, Mississippi, Ohio, Tennessee, and Wisconsin.

West Central: Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas.

Mountain/Pacific: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, and Guam.

SIZE

The size of the plan was based on collapsed codes from plan-reported data on total enrollment as of December 31, 1988.

TAX STATUS

Tax status was requested as of March 31, 1989.

FEDERAL QUALIFICATION STATUS

Federal qualification status was based on plan-reported data. Plans indicating that they were federally qualified in some service areas were included in the federally qualified group. Federal qualification status was requested as of March 31, 1989.

OWNERSHIP

Ownership was based on recoding from plan-reported data. Independent plans refer to plans independently owned by an HMO company. Provider-sponsored plans refer to plans owned by physicians, hospitals, or combinations, either as independent plans or part of chains. Plans owned by "other insurers" also include those of mixed ownership in which the insurer appeared to be the majority owner. Plans owned by national HMO chains include both those independently owned and those owned by a mix of parties in which the majority owner was not clear. Plans owned by "others" tended to be cooperatives, county-sponsored, church or university-owned, or publicly operated.

Table 1
Selected Characteristics of Responding HMOs, by Plan Age, 1988[1]

Selected Characteristics	All Plans			Plans > 3 Years Old			Plans ≤ 3 Years Old		
	No. of Plans	% of Plans	% of Enrollees	No. of Plans	% of Plans	% of Enrollees	No. of Plans	% of Plans	% of Enrollees
TOTAL	332	100.0	100.0	246	100.0	100.0	86	100.0	100.0
MODEL									
Staff	43	13.0	16.0	39	15.9	17.5	4	4.7	1.2
Group	53	16.0	35.4	44	17.9	37.6	9	10.5	8.2
Network	44	13.3	13.0	32	13.0	11.6	12	14.0	24.4
IPA	192	57.8	35.7	131	53.3	33.4	61	70.9	66.2
REGION									
New England	24	7.2	8.2	18	7.3	8.7	6	7.0	4.1
Mid-Atlantic	39	11.7	12.1	30	12.2	12.5	9	10.5	7.4
South Atlantic	57	17.2	11.0	40	16.3	9.5	17	19.8	23.3
East Central	91	27.4	18.4	65	26.4	18.5	26	30.2	28.9
West Central	46	13.9	9.4	33	13.4	8.7	13	15.1	15.9
Mountain/Pacific	75	22.6	40.9	60	24.4	42.1	15	17.4	20.5
SIZE									
0–19,999	112	33.7	4.6	52	21.1	2.4	60	69.8	34.1
20,000–49,999	90	27.1	11.4	70	28.5	9.8	20	23.3	33.2
50,000–99,999	69	20.8	20.1	65	26.4	20.6	4	4.7	14.3
100,000–249,000	49	14.8	28.7	47	19.1	29.5	2	2.3	18.4
250,000 +	12	3.6	35.2	12	4.9	37.8	0	—	—
PLAN AGE									
2–3	86	25.9	6.9	—	0.0	0.0	86	100.0	100.0
4–7	115	34.6	20.2	115	46.7	21.7	—	—	—
8–15	92	27.7	34.1	92	37.4	36.7	—	—	—
16–25	28	8.4	10.7	28	11.4	11.5	—	—	—
26 +	11	3.3	28.0	11	4.5	30.1	—	—	—
TAX STATUS									
Nonprofit	132	39.8	59.4	114.0	46.3	62.8	18	20.9	18.3
For-profit	200	60.2	40.6	132.0	53.7	37.2	68	79.1	81.7
QUALIFICATION STATUS									
Federally qualified	202	60.8	80.6	172	69.9	83.3	30	34.9	47.0
Non-qualified	130	39.2	19.4	74	30.1	16.7	56	65.1	53.0
OWNERSHIP									
Blue Cross/Blue Shield	55	16.6	12.4	43	17.5	13.0	12	14.0	19.4
Other Insurer	58	17.5	9.0	38	15.4	8.4	20	23.3	22.5
National HMO Chain	37	11.1	28.8	31	12.6	29.9	6	7.0	3.2
Independent	89	26.8	33.7	76	30.9	35.2	13	15.1	1.4
Provider-sponsored	83	25.0	14.0	49	19.9	11.2	34	39.5	41.2
Other	10	3.0	2.1	9	3.7	2.3	1	1.2	0.2

Notes:

1. Model, region, tax status, qualification status, and ownership characteristics of responding plans are as of March 31, 1989. Plan size and age are as of December 31, 1988.

Source: GHAA's Annual HMO Industry Survey

Table 2
Distributional Profile of Inpatient Discharges, Days, and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Plan Age, 1988[1]

	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS
All Plans									
Plan Mean	91.8	433	4.7	82.3	362	4.4	227.5	1553	6.7
Plan Median	85.3	384	4.6	79.1	349	4.4	232.1	1572	6.8
25th Percentile	74.5	331	4.1	68.9	303	4.0	175.7	1040	5.6
75th Percentile	101.3	479	5.2	90.9	409	4.9	278.9	1988	7.8
Standard Deviation	32.5	189	0.9	22.2	99	0.7	93.5	772	1.8
(Number of Plans)	280	292	282	173	179	176	139	145	140
Plans ≥ 3 Years									
Plan Mean	91.5	438	4.8	80.9	358	4.4	231.5	1582	6.7
Plan Median	85.1	390	4.7	78.6	347	4.4	233.9	1586	6.8
25th Percentile	74.7	335	4.2	68.8	305	4.0	179.7	1043	5.6
75th Percentile	101.7	488	5.3	89.8	405	4.9	281.8	2005	7.9
Standard Deviation	31.4	182	0.8	20.2	92	0.7	92.4	760	1.8
(Number of Plans)	211	220	212	143	149	144	123	129	124
Plans ≤ 3 Years									
Plan Mean	92.6	417	4.5	88.7	382	4.4	196.8	1316	6.3
Plan Median	86.4	372	4.3	86.1	359	4.2	201.3	1269	6.7
25th Percentile	71.6	317	3.9	69.8	300	3.9	122.3	614	5.7
75th Percentile	98.8	450	4.9	97.0	432	4.8	236.5	1619	7.4
Standard Deviation	36.0	209	0.9	29.5	130	0.9	99.7	850	1.7
(Number of Plans)	69	72	70	30	30	32	16	16	16

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold value were excluded from analysis. The threshold for discharges/1000, days/1000, and LOS were five, fifty and one, respectively. A maximum of four plans were eliminated from analysis using these criteria.

Source: GHAA's Annual HMO Industry Survey

Table 3

Mean Inpatient Discharges, Days, and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS
ALL PLANS	91.8	433	4.7	82.3	362	4.4	227.5	1553	6.7
MODEL									
Staff	89.0	437	4.9	76.4	341	4.5	243.4	1678	6.8
Group	95.8	462	4.8	77.4	339	4.4	224.6	1619	6.8
Network	90.2	401	4.6	85.1	368	4.3	211.7	1424	6.5
IPA	91.6	431	4.6	85.4	376	4.5	228.0	1512	6.6
REGION									
New England	92.1	484	5.3	77.2	385	5.0	239.1	1874	7.5
Mid-Atlantic	84.5	403	4.8	78.5	358	4.6	196.7	1544	7.9
South Atlantic	92.8	454	4.8	83.8	380	4.6	225.7	1518	6.5
East Central	95.7	445	4.7	89.3	399	4.5	238.2	1630	6.8
West Central	92.1	432	4.7	80.8	345	4.4	252.8	1717	6.4
Mountain/Pacific	88.8	394	4.3	75.3	302	3.9	207.3	1301	6.0
SIZE									
0-19,999	95.2	439	4.6	90.4	389	4.4	227.6	1405	5.9
20,000-49,999	89.6	397	4.5	81.6	362	4.4	217.5	1401	6.2
50,000-99,999	89.5	449	4.9	81.4	358	4.5	234.3	1685	7.2
100,000 +	92.1	457	4.9	74.5	333	4.5	232.4	1727	7.3
PLAN AGE									
1-3	92.6	417	4.5	88.7	382	4.4	196.8	1316	6.3
4-7	91.9	428	4.6	82.3	362	4.4	221.5	1469	6.6
8-15	95.1	459	4.8	83.2	361	4.4	243.7	1674	6.6
16 +	81.7	417	5.2	70.6	332	4.7	226.0	1676	7.4
TAX STATUS									
Nonprofit	93.1	464	4.9	81.6	366	4.5	222.9	1577	6.9
For-profit	90.9	413	4.5	82.8	358	4.4	231.1	1533	6.4
QUALIFICATION STATUS									
Federally qualified	90.9	428	4.7	79.5	352	4.4	226.8	1575	6.8
Non-qualified	93.3	441	4.6	88.1	383	4.5	229.4	1495	6.4
OWNERSHIP									
Blue Cross/Blue Shield	82.1	385	4.7	75.5	342	4.6	231.4	1694	7.3
Other Insurer	81.6	380	4.4	76.5	350	4.4	217.2	1347	5.9
National HMO Chain	102.6	505	5.0	72.9	329	4.5	220.2	1609	7.1
Independent	95.7	456	4.8	85.3	370	4.4	230.8	1657	7.0
Provider-sponsored	98.3	449	4.6	92.1	392	4.3	235.4	1485	6.4
Other	81.2	420	5.1	*	311	*	*	1149	*

Table 3 (continued)
Mean Inpatient Discharges, Days, and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1]

	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
Selected Characteristics, by Plan Age	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**
PLANS > 3 YEARS	91.5	438	4.8	80.9	358	4.4	231.5	1582	6.7
MODEL									
Staff	91.5	458	5.1	77.4	348	4.6	252.4	1738	6.8
Group	91.5	447	4.9	75.2	333	4.4	219.6	1582	6.7
Network	92.0	406	4.5	87.2	363	4.0	210.9	1400	6.3
IPA	91.4	437	4.7	83.6	372	4.5	236.5	1573	6.8
REGION									
New England	96.8	527	5.6	77.2	385	5.0	239.1	1874	7.5
Mid-Atlantic	85.6	417	4.8	78.1	361	4.7	196.7	1544	7.9
South Atlantic	88.1	427	4.8	79.5	369	4.7	219.6	1494	6.6
East Central	92.7	444	4.8	86.4	386	4.5	247.9	1701	7.0
West Central	95.1	452	4.7	81.1	343	4.4	251.7	1673	6.2
Mountain/Pacific	91.8	409	4.3	76.9	312	4.0	219.0	1373	6.1
SIZE									
0-19,999	98.5	475	4.8	89.6	396	4.5	248.7	1541	6.1
20,000-49,999	89.6	395	4.5	82.4	364	4.3	219.3	1375	6.0
50,000-99,999	89.1	349	4.9	80.2	355	4.5	234.3	1685	7.2
100,000 +	91.1	446	4.9	74.2	328	4.4	232.2	1727	7.3
PLAN AGE									
4-7	91.9	428	4.6	82.3	362	4.4	221.5	1469	6.6
8-15	95.1	459	4.8	83.2	361	4.4	243.7	1674	6.6
16 +	81.7	417	5.2	70.6	332	4.7	226.0	1676	7.4
TAX STATUS									
Nonprofit	91.8	465	5.0	79.3	358	4.6	225.7	1598	7.0
For-profit	91.2	416	4.5	82.5	357	4.3	236.6	1567	6.4
QUALIFICATION STATUS									
Federally qualified	91.5	432	4.7	79.8	350	4.4	229.5	1590	6.7
Non-qualified	91.6	453	4.8	84.2	378	4.6	238.6	1556	6.6
OWNERSHIP									
Blue Cross/Blue Shield	83.3	398	4.8	74.7	345	4.6	231.2	1698	7.3
Other Insurer	83.5	403	4.5	77.8	365	4.5	234.5	1453	5.9
National HMO Chain	102.7	499	4.9	73.6	324	4.4	223.5	1631	7.0
Independent	95.1	464	4.9	84.8	372	4.5	231.5	1651	6.9
Provider-sponsored	92.7	418	4.6	88.1	370	4.3	239.2	1513	6.6
Other	89.8	466	5.2	*	311	*	*	1149	*
PLANS ≤ 3 YEARS	92.6	417	4.5	88.7	382	4.4	196.8	1316	6.3

Notes:

1. For number of reporting plans and value exclusion rules see Table 2.

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 4
Distributional Profile of Total Encounters Per Member Per Year and Physician Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Plan Age, 1988[1]

	All Enrollees		Enrollees < 65		Enrollees ≥ 65	
	Total Encounters	Physician Encounters	Total Encounters	Physician Encounters	Total Encounters	Physician Encounters
All Plans						
Plan Mean	5.0	4.0	4.9	3.7	8.9	6.9
Plan Median	4.7	3.7	4.6	3.6	8.1	6.5
25th Percentile	3.7	3.1	3.7	2.9	5.8	4.6
75th Percentile	5.9	4.8	6.0	4.4	10.7	8.3
Standard Deviation	1.8	1.3	1.7	1.2	5.2	3.5
(Number of Plans)	224	203	143	137	122	121
Plans > 3 Years						
Plan Mean	5.1	4.0	5.1	3.8	9.5	7.2
Plan Median	4.9	3.7	4.8	3.6	8.6	6.6
25th Percentile	3.9	3.1	4.2	2.9	6.6	5.2
75th Percentile	6.1	4.9	6.0	4.5	11.1	8.4
Standard Deviation	1.8	1.3	1.6	1.2	4.9	3.4
(Number of Plans)	174	157	113	111	100	101
Plans ≤ 3 Years						
Plan Mean	4.5	3.7	4.2	3.4	6.3	5.1
Plan Median	3.9	3.7	3.7	3.6	4.3	3.8
25th Percentile	3.1	2.8	2.9	2.8	3.6	2.8
75th Percentile	5.3	4.6	5.2	4.1	6.5	5.9
Standard Deviation	2.0	1.4	2.0	1.1	5.7	3.5
(Number of Plans)	50	46	30	26	22	20

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses, the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold value were excluded. The threshold for total encounters/member/year and physician encounters/member/year was one. A maximum of nine plans were eliminated from analysis using these criteria.

Source: GHAA's Annual HMO Industry Survey

Table 5

Mean Total Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1,2]

Selected Characteristics	All Plans			Plans > 3 Years		
	All Enrollees	< 65	≥ 65	All Enrollees	< 65	≥ 65
TOTAL	5.0	4.9	8.9	5.1	5.1	9.5
MODEL						
Staff	5.3	5.1	9.9	5.5	5.2	10.3
Group	4.7	4.7	8.3	4.8	4.7	8.8
Network	4.5	4.8	7.7	4.5	4.6	7.3
IPA	5.1	4.9	9.3	5.3	5.3	10.4
REGION						
New England	5.3	5.1	7.7	5.2	5.1	7.7
Mid-Atlantic	4.8	4.7	7.3	5.0	4.7	7.7
South Atlantic	4.8	4.5	8.4	5.1	5.1	9.8
East Central	5.4	5.5	10.8	5.6	5.8	11.6
West Central	4.9	4.7	9.4	4.5	4.3	8.2
Mountain/Pacific	4.8	4.7	8.4	5.1	5.0	9.6
SIZE						
0–19,999	4.7	4.6	8.4	5.4	5.1	11.2
20,000–49,999	5.3	5.3	8.9	5.2	5.3	8.6
50,000–99,999	4.5	4.4	7.8	4.5	4.4	7.8
100,000 +	5.6	5.3	10.9	5.6	5.5	11.2
PLAN SIZE						
1–3	4.5	4.2	6.3	—	—	—
4–7	4.6	4.5	8.3	4.6	4.5	8.3
8–15	5.7	5.7	11.1	5.7	5.7	11.1
16 +	5.0	5.0	8.9	5.0	5.0	8.9
TAX STATUS						
Nonprofit	4.8	4.6	8.5	4.9	4.7	9.0
For-profit	5.2	5.1	9.3	5.4	5.4	10.1
QUALIFICATION STATUS						
Federally qualified	4.9	4.8	8.9	4.9	4.9	9.1
Non-qualified	5.3	5.0	9.0	5.8	5.5	11.3
OWNERSHIP						
Blue Cross/Blue Shield	4.6	4.3	7.4	4.6	4.5	8.0
Other Insurer	5.3	5.5	11.3	5.8	5.9	12.7
National HMO Chain	4.8	4.7	9.7	4.7	4.4	9.8
Independent	5.3	5.2	9.4	5.6	5.3	9.9
Provider-sponsored	4.7	4.4	7.7	4.7	4.9	7.9
Other	5.6	5.0	6.9	5.6	5.0	6.9

Notes:

1. For number of reporting plans and value exclusion rules see Table 4.
2. For Plan ≤3 years, the means for total encounters per member year were 4.5 for all enrollees (n = 50), 4.2 for enrollees <65 (n = 30) and 6.3 for enrollees >65 (n = 22).

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 6
Mean Physician Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1,2]

Selected Characteristics	All Plans			Plans > 3 Years		
	All Enrollees	< 65	≥ 65	All Enrollees	< 65	≥ 65
TOTAL	4.0	3.7	6.9	4.0	3.8	7.2
MODEL						
Staff	3.6	3.4	7.1	3.7	3.4	7.4
Group	3.8	3.4	5.9	3.6	3.4	6.2
Network	3.9	3.9	6.4	4.0	4.0	6.2
IPA	4.1	4.0	7.4	4.4	4.2	8.0
REGION						
New England	4.2	3.6	6.6	4.2	3.6	6.6
Mid-Atlantic	3.8	3.6	6.1	3.8	3.6	6.1
South Atlantic	4.0	3.6	6.4	4.2	3.8	7.3
East Central	4.1	4.1	7.8	4.2	4.3	8.4
West Central	3.8	3.4	7.1	3.6	3.3	6.5
Mountain/Pacific	4.0	3.6	6.6	4.1	3.6	7.3
SIZE						
0–19,999	3.8	3.6	6.6	4.2	4.0	8.1
20,000–49,999	4.2	3.9	7.2	4.2	3.9	7.2
50,000–99,999	3.6	3.5	5.9	3.6	3.3	5.7
100,000 +	4.3	4.0	8.0	4.3	4.0	8.2
PLAN SIZE						
1–3	3.7	3.4	5.1	—	—	—
4–7	3.8	3.4	6.4	3.8	3.4	6.4
8–15	4.3	4.2	8.1	4.3	4.2	8.1
16 +	4.0	3.7	7.0	4.0	3.7	7.0
TAX STATUS						
Nonprofit	3.9	3.5	6.7	3.9	3.6	7.0
For-profit	4.1	3.9	7.0	4.2	4.0	7.5
QUALIFICATION STATUS						
Federally qualified	3.9	3.6	6.9	3.9	3.7	7.0
Non-qualified	4.1	3.9	6.8	4.5	4.3	8.1
OWNERSHIP						
Blue Cross/Blue Shield	3.7	3.4	6.5	3.7	3.4	7.1
Other Insurer	4.3	4.2	8.3	4.5	4.4	8.8
National HMO Chain	3.7	3.4	6.6	3.6	3.2	6.5
Independent	4.1	3.9	7.5	4.3	3.9	7.7
Provider-sponsored	4.0	3.6	5.7	4.0	3.8	6.2
Other	3.6	3.0	5.2	3.6	3.0	5.2

Notes:

1. For number of reporting plans and value exclusion rules see Table 4.

2. For plans ≤3 years, the means for physician encounters per member per year were 3.7 for all enrollees (n = 46), 3.4 for enrollees <65 (n = 26), and 5.4 for enrollees ≥65 (n = 20).

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 7

Mean Percentage of Physician Encounters to Total Encounters for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1,2]

Selected Characteristics	All Plans			Plans > 3 Years		
	All Enrollees	< 65	≥ 65	All Enrollees	< 65	≥ 65
TOTAL	79.3	78.6	78.2	78.4	77.0	77.6
MODEL						
Staff	71.1	67.8	73.4	69.3	66.5	72.9
Group	79.1	76.6	78.1	77.2	74.9	76.2
Network	84.7	81.2	80.1	84.9	82.8	81.0
IPA	80.7	82.8	79.6	81.1	81.7	79.6
REGION						
New England	79.0	73.8	77.9	82.0	73.8	77.9
Mid-Atlantic	80.5	79.5	84.0	79.4	79.2	84.0
South Atlantic	81.1	81.4	82.5	79.2	78.3	80.0
East Central	77.6	77.3	74.4	77.1	76.7	74.6
West Central	80.0	80.5	77.8	80.5	80.4	78.5
Mountain/Pacific	78.3	74.5	74.2	75.8	71.8	72.4
SIZE						
0–19,999	81.5	81.1	78.3	77.9	77.9	74.1
20,000–49,999	78.8	77.8	80.8	79.2	77.6	81.6
50,000–99,999	79.5	79.5	80.4	78.8	77.8	79.3
100,000 +	76.8	75.1	73.2	77.6	75.1	74.4
PLAN SIZE						
1–3	82.1	84.9	81.4	—	—	—
4–7	81.3	79.2	79.8	81.3	79.2	79.8
8–15	77.0	76.3	75.3	77.0	76.3	75.3
16 +	75.5	73.6	77.5	75.5	73.6	77.5
TAX STATUS						
Nonprofit	79.9	78.4	81.4	79.3	78.5	81.3
For-profit	78.8	78.8	75.7	77.7	75.7	74.1
QUALIFICATION STATUS						
Federally qualified	79.1	77.7	78.4	78.7	76.9	78.3
Non-qualified	79.7	80.5	77.7	77.5	77.5	75.1
OWNERSHIP						
Blue Cross/Blue Shield	79.3	82.0	86.0	78.0	79.8	84.1
Other Insurer	81.0	79.4	70.3	77.6	75.8	68.3
National HMO Chain	78.6	74.7	76.6	78.8	75.4	76.1
Independent	78.9	77.8	79.9	77.5	76.8	78.8
Provider-sponsored	80.2	81.4	78.1	83.3	80.9	79.9
Other	70.4	59.8	74.9	66.3	59.8	74.9

Notes:

1. For number of reporting plans and value exclusion rules see Table 4.
2. For plans ≤3 years, the means for the percentage of physician encounters to the total encounters were 82.1% for all enrollee's (n = 45), 84.9% for enrollees <65 (n = 27), and 81.4% for enrollees >65 (n = 20).

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 8
Mean, Median, and Distribution of Plans for the Percentage of Caesarean Deliveries by Selected Plan Characteristics and Plan Age[1,2]

Selected Characteristics	Mean	Median	Distribution of Plans 1–10%	11–15%	16–20%	21–25%	26–30%	31–35%	36+%
ALL PLANS (n = 175)	24.3	24.0	1.7	5.1	26.3	25.7	25.7	12.0	3.4
MODEL									
Staff	18.8	20.0	0.0	22.2	44.4	33.3	0.0	0.0	0.0
Group	22.6	22.0	4.8	9.5	28.6	28.6	14.3	9.5	4.8
Network	21.9	21.0	0.0	0.0	47.6	38.1	9.5	4.8	0.0
IPA	25.9	26.0	1.7	2.6	19.1	21.7	34.8	15.7	4.3
REGION									
New England	21.7	21.0	0.0	18.8	31.3	25.0	25.0	0.0	0.0
Mid-Atlantic	24.2	24.0	0.0	0.0	20.8	41.7	29.2	4.2	4.2
South Atlantic	28.1	29.0	2.9	0.0	8.6	28.6	20.0	28.6	11.4
East Central	22.4	21.0	4.4	8.9	35.6	20.0	22.2	6.7	2.2
West Central	27.1	28.5	0.0	0.0	10.0	25.0	45.0	20.0	0.0
Mountain/Pacific	22.5	21.0	0.0	5.7	42.9	20.0	22.9	8.6	0.0
SIZE									
0–19,999	22.6	21.0	3.6	7.1	35.9	23.2	21.4	8.9	1.8
20,000–49,999	26.4	26.0	0.0	4.1	20.4	22.4	30.6	16.3	6.1
50,000–99,999	23.2	23.0	2.4	7.3	24.4	34.1	17.1	12.2	2.4
100,000 +	25.4	26.0	0.0	0.0	24.1	24.1	37.9	10.3	3.4
PLAN AGE									
1–3	24.1	25.0	4.2	8.3	25.0	18.8	27.1	10.4	6.3
4–7	26.1	27.0	0.0	1.7	18.3	26.7	30.0	21.7	1.7
8–15	23.0	23.0	0.0	6.4	27.7	34.0	25.5	6.4	0.0
16+	22.6	20.0	5.0	5.0	50.0	20.0	10.0	0.0	10.0
TAX STATUS									
Nonprofit	21.9	21.0	4.8	7.9	34.9	25.4	19.0	4.8	3.2
For-profit	25.7	25.0	0.0	3.6	21.4	25.9	29.5	16.1	3.6
QUALIFICATION STATUS									
Federally qualified	24.5	25.0	1.8	4.5	25.0	26.8	25.0	13.4	3.6
Non-qualified	23.9	23.0	1.6	6.3	28.6	23.8	27.0	9.5	3.2
OWNERSHIP									
Blue Cross/Blue Shield	23.3	23.0	0.0	4.3	21.7	34.8	34.8	4.3	0.0
Other Insurer	24.5	22.5	0.0	2.6	42.1	18.4	15.8	15.8	5.3
National HMO Chain	24.7	24.5	0.0	6.3	31.3	18.8	12.5	31.3	0.0
Independent	22.7	23.0	4.4	8.9	26.7	24.4	28.9	4.4	2.2
Provider-sponsored	26.3	27.0	2.0	4.1	10.2	30.6	32.7	14.3	6.1
Other	20.5	20.0	0.0	0.0	75.0	25.0	0.0	0.0	0.0

Table 8 (continued)
Mean, Median, and Distribution of Plans for the Percentage of Caesarean Deliveries by Selected Plan Characteristics and Plan Age[1,2]

Selected Characteristics	Mean	Median	Distribution of Plans						
			1–10%	11–15%	16–20%	21–25%	26–30%	31–35%	36 + %
PLANS >3 YEARS (n = 127)	24.4	24.0	0.8	3.9	26.8	28.3	25.2	12.6	2.4
MODEL									
Staff	19.1	20.0	0.0	18.8	43.8	37.5	0.0	0.0	0.0
Group	22.6	22.0	0.0	11.8	29.4	35.3	11.8	11.8	0.0
Network	22.0	21.0	0.0	0.0	43.8	43.8	6.3	6.3	0.0
IPA	26.4	27.0	1.3	0.0	19.2	21.8	37.2	16.7	3.8
REGION									
New England	21.9	22.0	0.0	15.4	30.8	30.8	23.1	0.0	0.0
Mid-Atlantic	25.0	24.0	0.0	0.0	17.6	35.3	35.3	5.9	5.9
South Atlantic	28.9	29.5	0.0	0.0	8.3	29.2	16.7	37.5	8.3
East Central	21.8	21.0	3.0	6.1	39.4	27.3	21.2	3.0	0.0
West Central	26.9	29.0	0.0	0.0	8.3	33.3	41.7	16.7	0.0
Mountain/Pacific	23.2	21.5	0.0	3.6	39.3	21.4	25.0	10.7	0.0
SIZE									
0–19,999	23.2	21.0	0.0	4.3	39.1	21.7	21.7	13.0	0.0
20,000–49,999	26.2	25.0	0.0	2.7	21.6	27.0	29.7	16.2	2.7
50,000–99,999	22.8	23.0	2.6	7.8	25.6	35.9	15.4	10.3	2.6
100,000 +	25.3	25.5	0.0	0.0	25.0	25.0	35.7	10.7	3.6
PLAN AGE									
4–7	26.1	27.0	0.0	1.7	18.3	26.7	30.0	21.7	1.7
8–15	23.0	23.0	0.0	6.4	27.7	34.0	25.5	6.4	0.0
16 +	22.6	20.0	5.0	5.0	50.0	20.0	10.0	0.0	10.0
TAX STATUS									
Nonprofit	22.4	21.0	1.9	7.4	35.2	25.9	20.4	5.6	3.7
For-profit	25.8	25.0	0.0	1.4	20.5	30.1	28.8	17.8	1.4
QUALIFICATION STATUS									
Federally qualified	24.7	24.0	1.1	3.3	25.3	28.6	24.2	14.3	3.3
Non-qualified	23.5	22.0	0.0	5.6	30.6	27.8	27.8	8.3	0.0
OWNERSHIP									
Blue Cross/Blue Shield	23.2	23.0	0.0	5.3	21.1	36.8	31.6	5.3	0.0
Other Insurer	25.8	23.0	0.0	0.0	40.0	20.0	12.0	24.0	4.0
National HMO Chain	25.1	24.5	0.0	0.0	33.3	25.0	8.3	33.3	0.0
Independent	22.6	23.0	2.8	8.3	27.8	25.0	33.3	0.0	2.8
Provider-sponsored	26.4	27.0	0.0	3.2	9.7	35.5	32.3	16.1	3.2
Other	20.5	20.0	0.0	0.0	75.0	25.0	0.0	0.0	0.0
PLANS ≤3 YEARS (n = 48)	24.1	25.0	4.2	8.3	25.0	18.8	27.1	10.4	6.3

Notes:

1. Distribution of plans is by the percentage of plans; each row adds to 100%.

2. For all plans reporting this measure, 65.7% were IPAs. The percentage reporting this measure was 10.3%, 12.0%, and 12.0%, respectively, for staff, group, and network model plans.

Source: GHAA's Annual HMO Industry Survey

Table 9
Selected Statistics for Medicare and Medicaid Enrollees in Plans by Plan Age, 1988

Selected Statistics	All Plans (n = 329)	Plans > 3 years (n = 245)	Plans ≤ 3 years (n = 84)
Mean plan enrollment	74,611	93,256	20,233
Medicare Enrollment			
All Plans:			
Mean number Medicare enrollees	5,130	6,324	1,915
Mean Medicare enrollment as % of total enrollment	4.7	5.5	2.7
% plans with no Medicare enrollment	47.7	37.1	78.6
Plans with Medicare enrollment:			
Mean number Medicare enrollees	11,842	11,508	15,956
Mean Medicare enrollment as % of total enrollment	10.9	10.0	22.6
(Number of plans)	120	111	9
Medicaid Enrollment			
All Plans:			
Mean number Medicaid enrollees	2,546	3,058	1,058
Mean Medicaid enrollment as % of total enrollment	7.4	5.2	13.7
% plans with no Medicaid enrollment	68.4	66.5	73.8
Plans with-Medicaid enrollment:			
Mean number Medicaid enrollees	10,084	11,228	4,686
Mean Medicaid enrollment as % of total enrollment	29.2	19.1	70.2
(Number of plans)	76	61	15
Medicare and Medicaid Enrollment			
All Plans:			
Mean number Medicare and Medicaid enrollees	7,245	9,379	1,264
Mean Medicare and Medicaid enrollment as % of total enrollment	12.2	10.6	16.8
% Plans with no Medicare or Medicaid enrollment	37.9	29.7	61.9
Plans with Medicare and/or Medicaid enrollment:			
Mean number Medicare and Medicaid enrollees	13,490	14,812	4,724
Mean Medicare and Medicaid enrollment as % of total enrollment	22.7	16.7	62.7
(Number of plans)	145	126	19

Source: GHAA's Annual HMO Industry Survey

Table 10
Selected Mean Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	Discharges/ 1,000 (n = 93)	Days/ 1,000 (n = 99)	LOS (n = 95)	Discharges/ 1,000 (n = 55)	Days/ 1,000 (n = 59)	LOS (n = 60)
ALL PLANS	268.9	1932	7.0	128.9	529	4.2
MODEL						
Staff	278.9	1987	6.9	130.2	542	4.3
Group	261.7	1952	7.6	127.9	512	4.0
Network	250.6	1612	6.7	114.4	485	4.3
IPA	271.8	1975	6.9	135.2	552	4.3
REGION						
New England	258.8	2219	8.0	119.8	540	4.6
Mid-Atlantic	278.5	2404	8.3	139.5	606	4.5
South Atlantic	262.0	1978	7.5	138.8	665	4.5
East Central	279.2	2104	7.1	125.4	519	4.2
West Central	270.9	1725	6.6	135.2	511	3.9
Mountain/Pacific	264.8	1701	6.3	130.6	455	3.7
SIZE						
0–19,999	270.6	1915	7.0	143.7	611	4.1
20,000–49,999	263.0	1693	6.6	129.9	511	4.2
50,000–99,999	278.4	1995	7.2	124.2	494	4.2
100,000 +	261.6	2009	7.1	115.9	493	4.3
PLAN AGE						
1–3	158.0	1390	6.9	143.1	601	4.0
4–7	280.6	1852	6.7	128.8	538	4.2
8–15	[illegible]	2033	7.0	128.7	504	4.1
16 +	248.9	1981	7.7	119.7	509	4.5
TAX STATUS						
Nonprofit	268.0	1934	7.2	133.6	567	4.3
For-profit	270.0	1929	6.8	116.3	436	4.0
QUALIFICATION STATUS						
Federally qualified	273.2	1948	7.1	122.9	510	4.2
Non-qualified	232.7	1800	6.8	139.4	562	4.1
OWNERSHIP						
Blue Cross/Blue Shield	260.4	1976	7.6	118.7	444	3.9
Other Insurer	*	2450	*	*	*	*
National HMO Chain	250.0	1687	7.1	138.7	526	3.8
Independent	281.0	2072	7.2	118.3	500	4.4
Provider-sponsored	262.9	1842	6.4	140.8	618	4.3
Other	306.0	1718	5.2	*	*	*

Table 10 (continued)

Selected Mean Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1,2]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Discharges/ 1,000 (n = 88)	Days/ 1,000 (n = 93)	LOS (n = 90)	Discharges/ 1,000 (n = 45)	Days/ 1,000 (n = 49)	LOS (n = 48)
PLANS > 3 YEARS	275.2	1967	7.0	125.7	515	4.2
MODEL						
Staff	278.9	1987	6.9	131.4	555	4.5
Group	261.7	1925	7.6	122.5	465	3.9
Network	256.3	1613	6.5	113.6	510	4.5
IPA	286.4	2078	6.9	129.6	525	4.3
REGION						
New England	280.8	2388	8.3	122.3	567	4.7
Mid-Atlantic	278.5	2404	8.3	144.4	642	4.7
South Atlantic	264.5	2001	7.6	*	*	*
East Central	279.2	2077	7.1	117.8	494	4.2
West Central	282.2	1768	6.5	135.2	511	3.9
Mountain/Pacific	268.3	1721	6.3	130.6	455	3.8
SIZE						
0–19,999	282.3	2009	7.1	136.8	590	4.3
20,000–49,999	280.9	1735	6.6	135.2	517	4.1
50,000–99,999	282.7	2023	7.2	124.7	495	4.2
100,000 +	262.4	2017	7.1	115.9	493	4.3
PLAN AGE						
1–3	—	—	—	—	—	—
4–7	280.6	1852	6.7	128.8	538	4.2
8–15	284.4	2033	7.0	128.7	504	4.1
16 +	248.9	1981	7.7	119.7	509	4.5
TAX STATUS						
Nonprofit	268.0	1934	7.2	129.2	550	4.4
For-profit	285.6	2012	6.8	116.1	426	3.9
QUALIFICATION STATUS						
Federally qualified	279.3	1979	7.1	123.4	511	4.2
Non-qualified	238.8	1863	6.8	132.8	525	4.3
OWNERSHIP						
Blue Cross/Blue Shield	260.4	1976	7.6	118.7	444	3.9
Other Insurer	*	2450	*	*	*	*
National HMO Chain	256.1	1715	7.0	138.7	526	3.8
Independent	285.3	2101	7.2	117.0	508	4.6
Provider-sponsored	282.1	1919	6.4	131.3	564	4.4
Other	306.0	1718	5.2	*	*	*

Table 10 (continued)
Selected Mean Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1,2]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Discharges/ 1,000 (n = 5)	Days/ 1,000 (n = 6)	LOS (n = 5)	Discharges/ 1,000 (n = 10)	Days/ 1,000 (n = 10)	LOS (n = 12)
PLANS ≤ 3 YEARS	158.0	1390	6.9	143.1	601	4.0

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses, the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold value were excluded. The threshold for discharges/1000, days/1000 LOS, physician encounters/member/year and encounters/member/year were five, fifty, one, one and one, respectively. A maximum of nine plans were eliminated using these criteria.
2. Due to small sample sizes for Medicare and Medicaid data in plans 3 years old or younger, only summary statistics are presented.

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 11

Selected Mean Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1,2]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Encounters/ Member/Year (n = 74)	Phy. Encounters/ Member/Year (n = 68)	% Phy. Encounters (n = 68)	Encounters/ Member/Year (n = 47)	Phy. Encounters/ Member/Year (n = 45)	% Phy. Encounters (n = 43)
ALL PLANS	9.0	7.1	79.7	5.2	3.7	76.3
MODEL						
Staff	10.0	6.8	73.6	5.1	3.7	72.2
Group	8.2	6.7	80.5	4.6	3.8	81.6
Network	7.2	6.1	86.9	*	*	*
IPA	9.1	7.8	81.8	5.6	3.8	73.3
REGION						
New England	8.7	6.7	77.9	6.1	4.6	76.0
Mid-Atlantic	9.9	7.1	73.3	4.8	3.4	74.1
South Atlantic	9.0	8.0	81.7	3.2	2.6	77.1
East Central	7.3	6.5	87.0	5.4	3.4	69.7
West Central	8.8	7.1	82.2	6.2	*	*
Mountain/Pacific	9.5	7.1	77.1	5.2	4.2	82.1
SIZE						
0–19,999	9.4	8.0	80.9	4.8	3.1	75.3
20,000–49,999	9.4	7.1	77.5	6.1	4.6	75.4
50,000–99,999	7.7	6.4	81.8	4.7	3.4	75.5
100,000 +	9.8	7.5	78.4	5.9	4.6	79.0
PLAN AGE						
1–3	6.5	5.3	75.3	4.8	3.8	81.1
4–7	7.9	7.3	87.8	4.3	3.3	76.1
8–15	10.4	7.5	75.7	5.2	3.4	71.6
16 +	8.2	6.5	79.3	6.0	4.5	78.4
TAX STATUS						
Nonprofit	8.7	7.2	81.6	5.0	3.5	76.3
For-profit	9.3	7.0	77.1	5.7	4.2	76.4
QUALIFICATION STATUS						
Federally qualified	9.1	7.2	78.8	5.2	3.8	75.0
Non-qualified	8.1	6.8	85.7	5.1	3.5	79.2
OWNERSHIP						
Blue Cross/Blue Shield	8.2	6.5	77.5	5.4	2.8	74.3
Other Insurer	*	*	*	*	*	*
National HMO Chain	7.7	6.3	82.6	5.4	3.6	72.9
Independent	10.1	7.8	78.7	5.5	3.8	73.2
Provider-sponsored	7.5	7.0	81.3	4.6	3.9	81.3
Other	10.1	8.2	82.3	*	*	*

Table 11 (continued)

Selected Mean Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Encounters/ Member/Year (n = 70)**	**Phy. Encounters/ Member/Year (n = 64)**	**% Phy. Encounters (n = 64)**	**Encounters/ Member/Year (n = 36)**	**Phy. Encounters/ Member/Year (n = 34)**	**% Phy. Encounters (n = 32)**
PLANS > 3 YEARS	9.1	7.2	80.0	5.3	3.7	74.7
MODEL						
Staff	10.0	6.8	73.6	5.7	4.1	69.5
Group	8.2	6.7	80.5	4.8	3.8	81.7
Network	7.2	6.1	86.9	*	*	*
IPA	9.5	8.3	83.0	5.4	3.4	68.9
REGION						
New England	9.2	7.1	78.9	5.2	3.7	75.5
Mid-Atlantic	9.9	7.1	73.3	4.8	3.4	74.1
South Atlantic	9.5	8.7	86.1	*	*	*
East Central	7.3	6.5	87.0	5.9	3.4	62.1
West Central	8.5	6.8	81.5	6.2	*	*
Mountain/Pacific	9.9	7.3	75.7	5.5	4.4	80.3
SIZE						
0-19,999	10.2	8.8	78.2	6.6	3.3	*
20,000-49,999	9.8	7.4	78.2	4.7	*	*
50,000-99,999	7.5	6.1	81.4	4.7	3.2	74.0
100,000 +	10.0	7.7	79.9	5.9	4.6	79.0
PLAN AGE						
1-3	7.9	7.3	87.8	4.3	3.3	76.1
4-7	10.4	7.5	75.7	5.3	3.4	71.6
8-15	8.2	6.5	79.3	6.0	4.5	78.4
16 +	—	—	—	—	—	—
TAX STATUS						
Nonprofit	8.7	7.2	81.6	5.3	3.7	75.8
For-profit	9.7	7.3	77.4	5.4	3.8	72.6
QUALIFICATION STATUS						
Federally qualified	9.2	7.2	79.4	5.1	3.7	75.9
Non-qualified	8.6	7.2	84.4	6.3	3.6	68.0
OWNERSHIP						
Blue Cross/Blue Shield	8.2	6.5	77.5	5.4	2.8	74.3
Other Insurer	*	*	*	*	*	*
National HMO Chain	7.9	6.4	81.7	5.0	3.6	77.1
Independent	10.0	7.7	78.2	6.0	4.0	69.6
Provider-sponsored	8.0	8.1	87.6	4.2	3.6	79.4
Other	10.1	8.2	82.3	*	*	*

Table 11 (continued)

Selected Mean Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1],[2]

Selected Characteristics, by Plan Age	Medicare Encounters/ Member/Year (n = 4)	Medicare Phy. Encounters/ Member/Year (n = 4)	Medicare % Phy. Encounters (n = 4)	Medicaid Encounters/ Member/Year (n = 11)	Medicaid Phy. Encounters/ Member/Year (n = 11)	Medicaid % Phy. Encounters (n = 11)
PLANS ≤ 3 YEARS	6.5	5.3	75.3	4.8	3.8	81.1

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold value were excluded. The threshold for discharges/1000, days/1000, LOS, physician encounters/member/year and encounters/member/year were five, fifty, one, one and one, respectively. A maximum of nine plans were eliminated using these criteria.
2. Due to small sample sizes for Medicare and Medicaid data in plans 3 years old or younger, only summary statistics are presented.

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 12
Mean Plan Enrollment and Inpatient Days Per 1,000 by Age and Sex of Member, by Plan Age, 1988

Member and Plan Age	% Enrollees			Days/1,000	
	Total	Male	Female	Male	Female
All Plans					
Total	100.0	47.0	53.0	—	—
< 15	27.1	13.8	13.4	236.3	198.9
15–44	50.6	22.8	27.9	222.9	417.8
45–64	17.0	8.1	8.8	660.3	539.1
65+	5.3	2.4	2.9	1499.1	1201.6
(Number of Plans)	(165)	—	—	(41)	(40)
Plans > 3 Years					
Total	100.0	47.1	52.9	—	—
< 15	26.0	13.2	12.7	237.0	201.1
15–44	50.5	22.8	27.7	222.5	417.9
45–64	17.5	8.4	9.1	660.6	538.7
65+	6.1	2.8	3.3	1492.2	1146.4
(Number of Plans)	(134)	—	—	(40)	(39)
Plans ≤ 3 Years					
Total	100.0	46.6	53.4	—	—
< 15	32.1	16.1	16.0	*	*
15–44	51.4	22.7	28.7	*	*
45–64	14.8	7.1	7.7	*	*
65+	1.7	0.8	0.9	*	*
(Number of Plans)	(31)	—	—	(1)	(1)

Note:
* Data are not shown where cell size is less than four plans.
Source: GHAA's Annual HMO Industry Survey

Table 13
Distribution of Plan Enrollment Among Eight Age and Sex Groups by Selected Plan Characteristics and Plan Age, 1988

Selected Characteristics	Mean Percent Enrollment							
	Female				Male			
	< 15	15–44	45–64	65 +	< 15	15–44	45–64	65 +
ALL PLANS (n = 165)	13.4	27.9	8.8	2.9	13.8	22.8	8.1	2.4
MODEL								
Staff	11.8	27.8	9.1	4.5	12.0	22.8	8.5	3.5
Group	12.7	27.8	8.8	3.6	13.0	22.9	8.2	2.9
Network	13.6	28.6	8.1	3.2	14.1	22.4	7.3	2.6
IPA	14.0	27.7	8.9	2.1	14.5	22.8	8.2	1.8
REGION								
New England	12.6	28.4	9.3	2.5	13.1	23.3	8.7	2.2
Mid-Atlantic	13.7	27.7	9.1	2.2	14.0	22.9	8.4	1.9
South Atlantic	13.3	29.4	8.0	2.9	13.4	22.8	7.5	2.7
East Central	14.0	28.0	8.9	2.2	14.4	22.3	8.4	1.8
West Central	13.8	27.0	8.6	3.0	14.6	22.8	7.9	2.2
Mountain/Pacific	12.6	26.8	9.0	4.5	12.9	22.8	8.0	3.4
SIZE								
0–19,999	15.1	28.0	8.6	2.0	15.1	21.6	7.8	1.8
20,000–49,999	13.0	27.6	9.3	3.0	13.5	22.5	8.6	2.5
50,000–99,999	13.2	28.6	8.3	2.7	13.8	23.4	7.8	2.2
100,000 +	12.1	27.4	9.0	3.9	12.6	23.6	8.4	3.1
PLAN AGE								
1–3	16.0	28.7	7.7	0.9	16.1	22.7	7.1	0.8
4–7	13.8	28.6	8.4	2.2	14.3	23.2	7.7	1.9
8–15	12.0	27.5	9.3	4.2	12.5	22.8	8.5	3.3
16 +	12.3	26.5	10.0	3.8	12.8	22.0	9.3	3.2
TAX STATUS								
Nonprofit	13.5	27.2	9.0	3.7	13.8	21.5	8.2	3.0
For-profit	13.2	28.5	8.7	2.2	13.7	23.8	8.1	1.8
QUALIFICATION STATUS								
Federally qualified	13.2	28.1	8.6	3.1	13.7	23.0	7.9	2.4
Non-qualified	13.6	27.3	9.3	2.5	14.0	22.3	8.7	2.3
OWNERSHIP								
Blue Cross/Blue Shield	13.9	27.6	8.7	1.9	14.6	23.1	8.4	1.8
Other Insurer	13.3	29.4	8.6	0.9	14.0	24.8	8.2	0.8
National HMO Chain	13.5	27.5	8.1	4.4	13.9	21.4	7.3	3.8
Independent	12.7	27.3	8.9	4.4	13.2	22.0	8.0	3.5
Provider-sponsored	13.6	28.5	8.5	2.4	13.6	23.7	7.8	1.8
Other	13.6	23.8	14.5	3.2	13.4	16.6	12.6	2.3

Table 13 (continued)
Distribution of Plan Enrollment Among Eight Age and Sex Groups by Selected Plan Characteristics and Plan Age, 1988

Selected Characteristics	Mean Percent Enrollment							
	Female				Male			
	< 15	15–44	45–64	65 +	< 15	15–44	45–64	65 +
PLANS > 3 YEARS (n = 134)	12.7	27.7	9.1	3.3	13.2	22.8	8.4	2.8
MODEL								
Staff	11.8	27.8	9.1	4.5	12.0	22.8	8.5	3.5
Group	12.2	27.7	9.1	3.8	12.7	23.0	8.5	3.0
Network	13.3	28.4	8.1	3.5	13.9	22.7	7.3	2.8
IPA	13.2	27.5	9.3	2.7	13.8	22.7	8.5	2.3
REGION								
New England	11.6	27.9	9.6	3.0	12.2	24.0	9.1	2.6
Mid-Atlantic	13.0	28.1	9.2	2.7	13.5	22.6	8.6	2.4
South Atlantic	12.9	28.6	8.3	3.5	13.2	22.5	7.8	3.2
East Central	13.1	28.2	9.2	2.3	13.7	22.9	8.6	1.9
West Central	13.3	26.4	8.6	4.3	14.1	22.3	7.8	3.1
Mountain/Pacific	12.4	26.5	9.4	4.6	12.8	22.6	8.3	3.5
SIZE								
0–19,999	13.1	26.9	10.0	3.0	13.5	21.5	9.1	2.8
20,000–49,999	12.8	27.7	9.2	3.5	13.2	22.3	8.4	2.8
50,000–99,999	13.2	28.5	8.3	2.7	13.8	23.3	7.8	2.2
100,000 +	12.1	27.3	9.1	4.0	12.6	23.4	8.4	3.2
PLAN AGE								
4–7	13.8	28.6	8.4	2.2	14.3	23.2	7.7	1.9
8–15	12.0	27.5	9.3	4.2	12.5	22.8	8.5	3.3
16 +	12.3	26.5	10.0	3.8	12.8	22.0	9.3	3.2
TAX STATUS								
Nonprofit	12.6	26.8	9.4	4.2	13.0	21.8	8.6	3.4
For-profit	12.9	28.5	8.7	2.5	13.4	23.7	8.1	2.1
QUALIFICATION STATUS								
Federally qualified	12.8	28.1	8.7	3.4	13.3	23.0	8.0	2.7
Non-qualified	12.4	26.5	10.1	3.2	13.0	22.2	9.6	3.0
OWNERSHIP								
Blue Cross/Blue Shield	13.3	27.9	8.7	2.3	14.1	23.2	8.4	2.1
Other Insurer	12.5	30.0	8.8	1.1	13.1	25.0	8.4	1.0
National HMO Chain	12.7	27.0	8.6	4.8	13.1	21.9	7.8	4.2
Independent	12.0	27.0	9.2	4.9	12.5	22.3	8.3	3.9
Provider-sponsored	13.5	28.2	8.5	2.5	14.0	23.5	7.9	2.0
Other	13.6	23.8	14.5	3.2	13.4	16.6	12.6	2.3
PLAN ≤ 3 YEARS (n = 31)	16.0	28.7	7.7	0.9	16.1	22.7	7.1	0.8

Source: GHAA's Annual HMO Industry Survey

Table 14

Standard Deviations for Inpatient Discharges, Days and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS
ALL PLANS	32.5	189	0.9	22.2	99	0.7	93.5	772	1.8
MODEL									
Staff	33.3	178	1.0	19.1	102	0.8	87.0	732	1.6
Group	51.3	269	0.9	22.2	98	0.7	95.1	825	1.7
Network	30.8	137	0.8	24.2	106	0.9	62.6	614	1.7
IPA	25.2	176	0.8	22.1	96	0.7	102.5	801	1.9
REGION									
New England	56.1	260	1.0	7.7	48	0.7	62.6	548	1.3
Mid-Atlantic	24.7	139	0.7	23.1	94	0.7	99.7	903	2.7
South Atlantic	32.2	238	1.0	24.3	110	0.8	86.7	761	1.7
East Central	27.7	135	0.7	21.6	96	0.6	106.0	875	1.8
West Central	28.9	158	0.8	23.1	71	0.9	102.9	821	1.5
Mountain/Pacific	33.8	215	0.8	19.8	101	0.5	75.4	543	1.2
SIZE									
0–19,999	33.8	218	1.0	29.0	133	0.9	131.1	995	2.1
20,000–49,999	27.9	124	0.7	16.4	78	0.7	77.9	676	1.6
50,000–99,999	25.4	173	0.8	20.5	84	0.7	94.1	679	1.7
100,000 +	43.3	229	0.7	18.3	90	0.7	75.8	739	1.4
PLAN AGE									
1–3	36.0	209	0.9	29.5	130	0.9	99.7	850	1.7
4–7	27.2	181	0.8	20.7	93	0.7	93.5	730	1.8
8–15	38.9	208	0.8	20.7	96	0.8	103.0	862	1.9
16 +	18.4	103	0.7	13.4	79	0.7	37.6	462	1.2
TAX STATUS									
Nonprofit	39.8	220	0.9	25.1	116	0.7	86.2	760	1.9
For-profit	26.8	165	0.8	19.7	85	0.8	99.3	786	1.6
QUALIFICATION STATUS									
Federally qualified	34.4	183	0.8	20.1	91	0.7	88.0	749	1.7
Non-qualified	29.1	200	0.9	25.1	113	0.8	108.1	835	1.9
OWNERSHIP									
Blue Cross/Blue Shield	17.8	100	0.9	15.6	75	0.8	74.5	664	1.4
Other Insurer	15.6	160	0.7	10.5	96	0.7	134.1	917	1.6
National HMO Chain	55.1	304	1.0	17.5	95	0.8	52.5	518	1.4
Independent	26.8	155	0.9	24.1	101	0.8	92.2	851	2.0
Provider-sponsored	35.1	194	0.7	26.8	108	0.7	97.7	773	1.6
Other	51.4	288	1.0	*	94	*	*	667	*

Table 14 (continued)
Standard Deviations for Inpatient Discharges, Days and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS
PLANS > 3 YEARS	31.4	182	0.8	20.2	92	0.7	92.4	760	1.8
MODEL									
Staff	31.0	166	0.9	18.9	97	0.7	77.8	689	1.7
Group	46.4	247	0.9	17.4	82	0.7	92.0	808	1.7
Network	32.9	145	0.7	25.5	116	0.6	66.2	649	1.8
IPA	23.5	170	0.8	19.9	87	0.7	103.7	792	1.9
REGION									
New England	65.4	289	0.9	7.7	48	0.7	62.6	548	1.3
Mid-Atlantic	26.4	157	0.7	25.9	108	0.7	99.7	903	2.7
South Atlantic	25.4	194	0.9	19.9	99	0.6	92.2	806	1.8
East Central	21.1	122	0.8	17.4	79	0.7	100.3	840	1.7
West Central	31.2	180	0.8	24.1	76	0.8	105.1	806	1.5
Mountain/Pacific	33.1	197	0.7	20.2	101	0.5	69.6	509	1.1
SIZE									
0–19,999	33.0	232	1.1	26.8	124	1.0	139.7	1050	2.2
20,000–49,999	25.5	125	0.7	15.8	82	0.6	74.2	641	1.6
50,000–99,999	24.9	174	0.8	19.2	78	0.7	94.1	679	1.7
100,000 +	42.0	200	0.7	18.5	84	0.6	77.0	750	1.4
PLAN AGE									
4–7	27.2	181	0.8	20.7	93	0.7	93.5	730	1.8
8–15	38.9	208	0.8	20.7	96	0.8	103.0	862	1.9
16 +	18.4	103	0.7	13.4	79	0.7	37.6	462	1.2
TAX STATUS									
Nonprofit	38.0	212	0.8	21.0	102	0.7	80.1	724	1.9
For-profit	24.8	151	0.8	19.4	83	0.7	102.4	798	1.6
QUALIFICATION STATUS									
Federally qualified	33.8	177	0.8	19.7	88	0.7	88.4	758	1.7
Non-qualified	24.3	196	0.9	21.3	100	0.8	106.9	782	2.0
OWNERSHIP									
Blue Cross/Blue Shield	18.1	104	0.9	15.5	77	0.7	76.5	681	1.4
Other Insurer	16.2	183	0.6	10.1	100	0.7	134.6	924	1.5
National HMO Chain	56.1	301	0.9	16.9	95	0.6	54.1	534	1.5
Independent	26.7	158	0.9	23.7	96	0.8	86.5	809	2.0
Provider-sponsored	28.4	138	0.7	22.6	86	0.7	102.3	789	1.6
Other	47.5	270	1.0	*	94	*	*	667	*
PLANS ≤ 3 YEARS	36.0	209	0.9	29.5	130	0.9	99.7	850	1.7

Note:

1. For number of reporting plans and value exclusion rules see Table 2.

*Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 15

Standard Deviations for Total Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1,2]

Selected Characteristics	All Plans			Plans > 3 Years		
	All Enrollees	< 65	≥ 65	All Enrollees	< 65	≥ 65
TOTAL	1.8	1.7	5.2	1.8	1.6	4.9
MODEL						
Staff	1.9	1.7	3.7	1.8	1.7	3.4
Group	1.4	1.5	4.0	1.2	1.3	3.8
Network	1.2	1.4	4.0	1.3	1.3	3.2
IPA	2.0	1.9	6.3	2.0	1.8	6.2
REGION						
New England	1.5	0.8	2.2	1.4	0.8	2.2
Mid-Atlantic	1.3	1.5	3.9	1.3	1.3	3.8
South Atlantic	2.1	1.5	4.5	2.0	1.5	4.4
East Central	2.0	2.1	7.1	2.0	2.0	7.1
West Central	1.8	1.8	4.8	1.4	1.3	2.6
Mountain/Pacific	1.8	1.7	4.5	1.8	1.7	4.2
SIZE						
0-19,999	2.0	1.8	6.4	1.9	1.5	6.9
20,000-49,999	2.0	1.9	4.8	1.9	1.8	3.4
50,000-99,999	1.4	1.5	4.3	1.5	1.5	4.3
100,000 +	1.7	1.6	4.6	1.7	1.5	4.5
PLAN AGE						
1-3	2.0	2.0	5.7	1.6	1.5	4.2
4-7	1.6	1.5	4.2	1.9	1.7	5.8
8-15	1.9	1.7	5.8	1.3	1.3	3.1
16 +	1.3	1.3	3.1	—	—	—
TAX STATUS						
Nonprofit	1.7	1.7	4.7	1.6	1.6	4.7
For-profit	1.9	1.8	5.6	1.9	1.6	5.1
QUALIFICATION STATUS						
Federally qualified	1.7	1.6	4.1	1.7	1.7	4.1
Non-qualified	2.0	1.9	7.3	1.8	1.4	7.0
OWNERSHIP						
Blue Cross/Blue Shield	1.3	1.5	3.8	1.2	1.5	3.6
Other Insurer	2.2	2.1	7.4	2.1	1.8	7.3
National HMO Chain	1.4	1.1	4.8	1.3	0.7	4.8
Independent	2.0	1.8	4.3	2.0	1.8	4.0
Provider-sponsored	1.9	1.7	5.2	1.6	1.4	4.2
Other	1.4	1.5	2.5	1.4	1.5	2.5

Notes:

1. For number of reporting plans and value exclusion rules see Table 4.
2. For plans ≤ 3 years, the standard deviations for total encounters per member per year were 2.0 for all enrollees (n = 50), 2.0 for enrollees < 65 (n = 30), and 5.7 for enrollees ≥ 65 (n = 22).

Source: GHAA's Annual HMO Industry Survey

Table 16

Standard Deviations for Physician Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Charact[illegible]ics and Plan Age, 1988[1,2]

Selected Characteristics	All Plans			Plans > 3 Years		
	All Enrollees	< 65	≥ 65	All Enrollees	< 65	≥ 65
TOTAL	1.3	1.2	3.5	1.3	1.2	3.4
MODEL						
Staff	1.3	1.1	2.9	1.2	1.1	2.7
Group	1.2	1.0	2.3	1.0	0.9	2.2
Network	0.9	0.9	2.7	1.0	1.0	2.2
IPA	1.4	1.3	4.2	1.4	1.3	4.2
REGION						
New England	1.1	0.6	1.5	0.9	0.6	1.5
Mid-Atlantic	0.9	0.9	2.1	1.0	1.0	2.1
South Atlantic	1.5	1.1	3.3	1.5	1.1	3.2
East Central	1.5	1.6	4.6	1.6	1.5	4.5
West Central	1.3	1.0	2.9	1.0	1.0	2.3
Mountain/Pacific	1.3	1.1	3.3	1.3	1.2	3.3
SIZE						
0–19,999	1.5	1.3	4.2	1.6	1.5	4.4
20,000–49,999	1.4	1.2	3.1	1.4	1.3	2.9
50,000–99,999	1.0	1.0	2.2	1.0	0.9	2.1
100,000 +	1.3	1.1	3.8	1.3	1.1	3.7
PLAN AGE						
1–3	1.4	1.1	3.5	1.3	1.0	3.0
4–7	1.3	1.0	3.0	1.3	1.2	3.8
8–15	1.3	1.2	3.8	1.3	1.4	2.4
16 +	1.3	1.4	2.4	—	—	—
TAX STATUS						
Nonprofit	1.4	1.2	3.1	1.3	1.2	3.0
For-profit	1.3	1.1	3.8	1.3	1.2	3.7
QUALIFICATION STATUS						
Federally qualified	1.2	1.1	3.1	1.2	1.1	3.0
Non-qualified	1.6	1.4	4.4	1.6	1.5	4.3
OWNERSHIP						
Blue Cross/Blue Shield	0.9	0.8	3.1	1.0	0.9	2.9
Other Insurer	1.6	1.4	4.6	1.5	1.4	4.6
National HMO Chain	1.0	0.6	2.4	1.1	0.5	1.8
Independent	1.3	1.1	3.2	1.3	1.2	3.2
Provider-sponsored	1.5	1.4	3.4	1.4	1.4	3.2
Other	1.4	0.9	2.0	1.4	0.9	2.0

Notes:

1. For number of reporting plans and value exclusion rules see Table 4.
2. For plans ≤ 3 years, the standard deviations for physician encounters per member per year were 1.4 for all enrollees (n = 46), 1.1 for enrollees < 65 (n = 26), and 3.5 for enrollees ≥ 65 (n = 20).

Source: GHAA's Annual HMO Industry Survey

Table 17
Standard Deviations for Percentage of Physician Encounters to Total Encounters for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1988[1,2]

Selected Characteristics	All Plans			Plans > 3 Years		
	All Enrollees	< 65	≥ 65	All Enrollees	< 65	≥ 65
TOTAL	16.9	17.6	17.8	16.9	17.3	17.3
MODEL						
Staff	16.2	15.9	15.1	15.6	14.9	15.3
Group	17.6	19.1	17.4	17.6	18.1	17.2
Network	9.2	11.2	9.4	9.1	8.5	9.8
IPA	17.2	17.3	20.4	17.1	17.5	19.6
REGION						
New England	17.6	13.8	8.8	17.2	13.8	8.8
Mid-Atlantic	15.6	18.2	12.7	16.3	18.5	12.7
South Atlantic	19.8	19.9	21.1	20.0	20.5	21.9
East Central	15.7	16.5	19.6	15.9	16.0	18.6
West Central	17.7	18.5	16.0	16.7	17.9	15.2
Mountain/Pacific	16.0	15.5	15.2	16.3	14.8	15.6
SIZE						
0–19,999	17.0	18.0	19.0	17.7	17.4	18.1
20,000–49,999	18.2	21.0	20.1	19.3	21.4	20.2
50,000–99,999	16.5	16.2	15.0	16.5	16.0	14.9
100,000 +	15.6	14.1	16.7	14.8	14.1	15.7
PLAN AGE						
1–3	16.7	17.8	20.5	19.5	20.7	21.6
4–7	19.5	20.7	21.6	15.2	14.8	14.8
8–15	15.2	14.8	14.8	13.6	13.4	9.6
16 +	13.6	13.4	9.6	—	—	—
TAX STATUS						
Nonprofit	15.1	15.8	13.3	14.9	14.7	12.6
For-profit	18.1	19.1	20.5	18.6	19.5	20.3
QUALIFICATION STATUS						
Federally qualified	16.7	17.5	16.5	16.8	17.4	16.3
Non-qualified	17.4	17.9	21.0	17.5	17.3	20.5
OWNERSHIP						
Blue Cross/Blue Shield	17.6	17.5	13.7	17.4	17.3	13.5
Other Insurer	16.5	17.1	20.8	17.4	17.1	21.2
National HMO Chain	14.2	13.8	12.9	12.9	12.4	10.1
Independent	17.5	18.6	15.4	18.0	18.6	15.5
Provider-sponsored	17.9	18.9	22.3	17.5	19.2	21.6
Other	13.8	1.4	12.1	9.4	1.4	12.1

Notes:

1. For number of reporting plans and value exclusion rules see Table 4.
2. For plans ≤ 3 years, the standard deviations for percentage of physician encounters to total encounters were 16.7 for all enrollees (n = 45), 17.8 for enrollees < 65 (n = 22), and 20.5 for enrollees ≥ 65 (n = 20).

Source: GHAA's Annual HMO Industry Survey

Table 18
Standard Deviations for Selected Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	Medicare Discharges/ 1,000 (n = 93)	Medicare Days/ 1,000 (n = 99)	Medicare LOS (n = 95)	Medicaid Discharges/ 1,000 (n = 55)	Medicaid Days/ 1,000 (n = 59)	Medicaid LOS (n = 60)
ALL PLANS	63.9	614	1.6	40.5	213	.9
MODEL						
Staff	50.4	712	1.9	37.7	229	1.2
Group	63.2	575	1.3	53.9	268	.9
Network	61.1	225	1.5	22.1	103	.7
IPA	72.7	640	1.6	36.1	194	.8
REGION						
New England	86.8	771	1.4	28.3	237	1.6
Mid-Atlantic	69.7	428	1.9	69.3	212	.7
South Atlantic	60.8	507	1.0	49.8	337	.9
East Central	35.3	386	1.7	32.8	150	.6
West Central	64.0	645	1.7	22.2	50	.7
Mountain/Pacific	72.4	596	1.4	50.5	257	.8
SIZE						
0–19,999	78.5	941	2.7	38.5	226	.7
20,000–49,999	78.8	592	1.7	50.3	260	1.0
50,000–99,999	61.4	489	1.3	43.6	179	1.0
100,000 +	54.3	634	1.6	31.3	214	1.1
PLAN AGE						
1–3	75.8	800	1.2	40.5	265	.7
4–7	56.8	428	1.5	24.5	125	.8
8–15	59.1	676	1.8	57.6	273	1.0
16 +	49.5	582	1.4	27.2	160	1.1
TAX STATUS						
Nonprofit	53.7	614	1.6	44.2	234	1.0
For-profit	75.7	622	1.6	25.9	109	.7
QUALIFICATION STATUS						
Federally qualified	65.6	606	1.4	43.3	221	1.0
Non-qualified	31.6	695	3.1	33.7	200	.7
OWNERSHIP						
Blue Cross/Blue Shield	49.0	331	1.6	20.4	127	1.0
Other Insurer	*	734	*	*	*	*
National HMO Chain	60.8	504	1.5	64.5	267	1.0
Independent	55.7	606	1.4	38.2	212	1.0
Provider-sponsored	89.1	658	1.8	37.2	211	.7
Other	90.5	1292	2.9	*	*	*

Table 18 (continued)
Standard Deviations for Selected Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Discharges/ 1,000 (n = 88)	Days/ 1,000 (n = 93)	LOS (n = 90)	Discharges/ 1,000 (n = 45)	Days/ 1,000 (n = 49)	LOS (n = 48)
PLANS > 3 YEARS	57.6	589	1.7	40.3	201	1.0
MODEL						
Staff	50.4	712	1.9	39.2	232	1.1
Group	63.2	571	1.3	52.1	208	.9
Network	62.0	237	1.5	26.0	108	.6
IPA	56.6	557	1.7	34.5	201	.9
REGION						
New England	49.4	494	1.1	31.9	260	1.7
Mid-Atlantic	69.7	428	1.9	76.4	216	.7
South Atlantic	63.5	528	1.0	*	*	*
East Central	35.3	379	1.7	27.7	127	.6
West Central	55.7	658	1.7	22.2	50	.7
Mountain/Pacific	71.6	598	1.4	50.5	257	.8
SIZE						
0–19,999	75.1	961	2.8	36.9	167	.6
20,000–49,999	55.5	473	1.7	54.3	284	1.1
50,000–99,999	57.0	467	1.4	44.8	184	1.0
100,000 +	55.0	642	1.6	31.3	214	1.1
PLAN AGE						
4–7	56.8	428	1.5	24.5	125	.8
8–15	59.1	676	1.8	57.6	273	1.0
16 +	49.5	582	1.4	27.2	160	1.1
TAX STATUS						
Nonprofit	53.7	614	1.6	43.6	218	1.0
For-profit	62.0	558	1.7	28.6	118	.8
QUALIFICATION STATUS						
Federally qualified	58.8	578	1.4	43.8	224	1.1
Non-qualified	26.4	699	3.2	2[illegible].3	124	.6
OWNERSHIP						
Blue Cross/Blue Shield	49.0	331	1.6	20.4	127	1.0
Other Insurer	*	734	*	*	*	*
National HMO Chain	60.3	515	1.5	64.5	267	1.0
Independent	50.3	589	1.4	41.4	224	1.0
Provider-sponsored	67.8	512	1.9	26.3	122	.9
Other	90.5	1292	2.9	*	*	*

Table 18 (continued)
Standard Deviations for Selected Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Discharges/ 1,000 (n = 5)	Days/ 1,000 (n = 6)	LOS (n = 5)	Discharges/ 1,000 (n = 10)	Days/ 1,000 (n = 10)	LOS (n = 12)
PLANS ≤ 3 YEARS	75.8	800	1.2	40.5	265	.7

Notes:

1. For value exclusion rules, see Table 10.
2. Due to small sample sizes for Medicare and Medicaid data in plans three years old or younger, only summary statistics are presented.

Source: GHAA's Annual HMO Industry Survey

Table 19
Standard Deviations for Selected Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Encounters/ Member/Year (n = 74)	Phy. Encounters/ Member/Year (n = 68)	% Phy. Encounters (n = 68)	Encounters/ Member/Year (n = 47)	Phy. Encounters/ Member/Year (n = 45)	% Phy. Encounters (n = 43)
ALL PLANS	4.0	2.9	16.3	2.4	1.6	18.4
MODEL						
Staff	3.7	1.9	15.6	2.0	1.5	15.9
Group	1.7	1.9	15.2	1.5	1.4	17.9
Network	2.0	1.4	7.5	*	*	*
IPA	5.2	3.9	18.1	3.1	1.9	21.3
REGION						
New England	3.9	2.3	14.1	3.5	2.4	18.8
Mid-Atlantic	5.4	3.7	12.4	1.2	.7	15.0
South Atlantic	4.8	3.8	23.2	1.0	1.3	25.1
East Central	3.0	1.9	13.0	2.5	1.3	22.0
West Central	2.3	2.3	13.9	3.9	*	*
Mountain/Pacific	4.5	3.2	18.4	1.5	1.1	7.4
SIZE						
0–19,999	4.3	3.1	9.0	2.5	1.3	21.3
20,000–49,999	3.3	2.6	23.5	3.3	3.1	12.6
50,000–99,999	2.7	2.0	15.0	2.4	1.4	20.8
100,000 +	4.8	3.5	16.2	2.0	1.0	14.6
PLAN AGE						
1–3	4.3	4.5	25.3	3.0	2.3	21.1
4–7	3.7	3.1	14.2	1.7	1.5	22.1
8–15	4.7	3.1	16.7	2.7	1.1	18.6
16 +	1.4	1.2	12.8	1.8	1.[illegible]	12.3
TAX STATUS						
Nonprofit	3.8	2.5	12.7	2.3	1.4	18.5
For-profit	4.2	3.3	20.3	2.6	1.8	19.0
QUALIFICATION STATUS						
Federally qualified	4.1	2.8	16.1	2.5	1.7	17.2
Non-qualified	3.4	3.2	16.6	2.3	1.3	21.0
OWNERSHIP						
Blue Cross/Blue Shield	2.8	2.7	16.9	3.0	1.3	18.5
Other Insurer	*	*	*	*	*	*
National HMO Chain	2.8	2.5	12.6	1.9	1.1	16.0
Independent	4.0	2.6	16.9	2.6	1.2	21.5
Provider-sponsored	4.5	4.2	21.8	2.5	2.2	19.4
Other	4.2	2.6	9.7	*	*	*

Table 19 (continued)
Standard Deviations for Selected Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Encounters/ Member/Year (n = 70)	Phy. Encounters/ Member/Year (n = 64)	% Phy. Encounters (n = 64)	Encounters/ Member/Year (n = 36)	Phy. Encounters/ Member/Year (n = 34)	% Phy. Encounters (n = 32)
PLANS > 3 YEARS	3.9	2.7	15.8	2.2	1.3	17.4
MODEL						
Staff	5.7	1.9	15.6	1.7	1.3	15.2
Group	1.7	1.9	15.2	1.5	1.3	14.9
Network	2.0	1.4	7.5	*	*	*
IPA	5.3	3.8	17.0	3.0	1.3	21.8
REGION						
New England	3.9	2.2	14.9	2.8	1.2	20.9
Mid-Atlantic	5.4	3.7	12.4	1.2	.7	15.0
South Atlantic	4.7	3.2	19.4	*	*	*
East Central	3.0	1.9	13.0	2.5	1.0	20.2
West Central	2.2	2.0	14.1	3.9	*	*
Mountain/Pacific	4.4	3.2	18.2	1.4	1.1	5.2
SIZE						
0-19,999	3.9	2.7	6.2	2.5	.9	*
20,000-49,999	3.2	2.5	24.9	1.3	*	*
50,000-99,999	2.5	1.7	15.1	2.4	1.3	20.6
100,000 +	4.8	3.3	14.7	2.0	1.0	14.6
PLAN AGE						
4-7	3.7	3.1	14.2	1.7	1.5	22.1
8-15	4.7	3.1	16.7	2.7	1.1	18.6
16 +	1.4	1.2	12.8	1.8	1.1	12.3
TAX STATUS						
Nonprofit	3.8	2.5	12.7	2.3	1.3	16.8
For-profit	4.1	3.1	19.9	2.2	1.3	19.3
QUALIFICATION STATUS						
Federally qualified	4.0	2.7	15.6	2.2	1.3	16.8
Non-qualified	3.2	3.2	17.2	2.2	1.1	21.4
OWNERSHIP						
Blue Cross/Blue Shield	2.8	2.7	16.9	3.0	1.3	18.5
Other Insurer	*	*	*	*	*	*
National HMO Chain	2.8	2.5	12.4	1.7	1.1	12.7
Independent	4.0	2.5	17.0	2.6	1.1	21.9
Provider-sponsored	4.8	4.0	18.0	1.2	1.6	18.3
Other	4.2	2.6	9.7	*	*	*

Table 19 (continued)
Standard Deviations for Selected Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1988[1]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Encounters/ Member/Year (n = 4)	Phy. Encounters/ Member/Year (n = 4)	% Phy. Encounters (n = 4)	Encounters/ Member/Year (n = 11)	Phy. Encounters/ Member/Year (n = 11)	% Phy. Encounters (n = 11)
PLANS ≤ 3 YEARS	4.3	4.5	25.3	3.0	2.3	21.1

Notes:

1. For value exclusion rules, see Table 11.
2. Due to small sample sizes for Medicare and Medicaid data in plans three years old or younger, only summary statistics are presented.

Source: GHAA's Annual HMO Industry Survey

APPENDICES

Table A-1
Response Rates to GHAA's Fourth Annual Industry Survey by Selected Plan Characteristics, 1988–1989[1]

		Response Rate (%)						Enrollment Response Rate		
								% Response		
Selected Characteristics	**Number Surveyed[2]**	**Number Responding**	**All Plans**	**> 3**	**≤ 3**	**Total Enrollment**	**Respondent Enrollment**	**All plans**	**> 3**	**≤ 3**
TOTAL	570	332	58.2	62.7	48.0	32,277,873	23,732,245	73.5	75.2	55.1
MODEL[3]										
Staff	66	41	62.1	62.7	57.1	4,213,807	3,395,557	80.6	81.3	34.1
Group	78	55	70.5	72.5	55.6	9,515,926	8,791,832	92.4	92.6	79.7
Network	71	44	62.0	67.3	50.0	4,170,766	3,038,976	72.9	72.3	77.8
IPA	355	192	54.1	58.6	46.7	14,377,374	8,505,880	59.2	60.8	49.8
SIZE										
0–19,999	240	113	47.1	48.2	46.1	2,356,882	1,150,792	48.8	45.9	52.3
20,000–49,999	161	93	57.8	60.2	50.0	5,001,832	2,952,736	59.0	61.7	49.3
50,000–99,999	97	69	71.1	71.4	66.7	6,833,349	4,926,827	72.1	72.9	59.3
100,000 +	72	57	79.2	78.9	100.0	18,085,810	14,701,890	81.3	81.1	100.0
PLAN AGE										
2–3	173	83	48.0	—	48.0	2,708,029	1,492,074	55.1	—	55.1
4–7	213	116	54.5	54.5	—	7,811,327	4,932,535	63.1	63.1	—
8–15	130	95	73.1	73.1	—	11,110,617	7,913,289	71.2	71.2	—
16 +	54	38	70.4	70.4	—	10,647,900	9,394,347	88.2	88.2	—
GHAA MEMBERS										
Member	253	177	70.0	78.4	44.4	19,636,694	17,513,706	89.2	91.2	50.9
Non-member	317	155	48.9	48.3	50.0	12,641,179	6,218,539	49.2	47.9	57.4
TAX STATUS										
Nonprofit	190	134	70.5	73.1	58.8	17,081,730	14,654,533	85.8	86.3	71.8
For-profit	380	198	52.1	56.0	45.3	15,196,143	9,077,712	59.7	61.2	50.6
QUALIFICATION STATUS										
Federally qualified	320	201	62.8	64.7	52.9	24,917,091	19,002,401	76.3	25.3	97.4
Non-qualified	250	131	52.4	58.6	45.9	7,360,782	4,729,844	64.3	91.6	79.2

Notes:

1. This analysis is based on information provided by plans for *GHAA's National Directory of HMOs*, 1989 ed. Enrollment and plan characteristics are as of December 31, 1988.
2. Plans surveyed include all HMOs operational as of January 1, 1989.
3. Represents predominate model type as designated by plan.

Source: Data from *GHAA's National Directory of HMOs*, 1989 ed.

Respondents to the GHAA Annual HMO Industry Survey

AV-MED Health Plan (Miami, FL)
AllHealth (Madison, WI)
AmeriMed (Burbank, CA)
AmeriPlan Health Services, Inc. (Jacksonville, FL)
Arizona Health Plan, Inc./Phoenix IPA (Phoenix, AZ)
Arizona Physicians IPA, Inc. (Phoenix, AZ)
Baptist Medical System HMO, Inc., (Little Rock, AR)
Bay Pacific Health Plan (San Bruno, CA)
Bay State Health Care, Inc. (Cambridge, MA)
Blue Care Network—Health Central (Lansing, MI)
Blue Care Network of East Michigan (Saginaw, MI)
Blue Care Network of South East Michigan (Southfield, MI)
Blue Care Network, Great Lakes (Grand Rapids, MI)
BlueLincs HMO (Tulsa, OK)
Bridgeway Plan for Health (San Francisco, CA)
Bronx Health Plan (Bronx, NY)
CIGNA Health Network, Inc. (Dallas, TX)
CIGNA Healthplan Mid-Atlantic (Columbia, MD)
CIGNA Healthplan of Arizona, Inc.—Tucson (Tucson, AZ)
CIGNA Healthplan of Arizona, Inc.—Phoenix (Phoenix, AZ)
CIGNA Healthplan of CA.—San Diego (San Diego, CA)
CIGNA Healthplan of California, Inc. (Glendale, CA)
CIGNA Healthplan of Colorado, Inc. (Denver, CO)
CIGNA Healthplan of Florida, Inc.—Maitland (Maitland, FL)
CIGNA Healthplan of Florida, Inc.—Tampa (Tampa, FL)
CIGNA Healthplan of Georgia, Inc. (Atlanta, GA)
CIGNA Healthplan of Illinois (Des Plaines, IL)
CIGNA Healthplan of Kansas City (Kansas City, MO)
CIGNA Healthplan of Louisiana, Inc. (Baton Rouge, LA)
CIGNA Healthplan of Massachusetts, Inc. (Springfield, MA)
CIGNA Healthplan of North Louisiana (Shreveport, LA)
CIGNA Healthplan of Northern California (Oakland, CA)
CIGNA Healthplan of Ohio, Inc. (Cleveland, OH)
CIGNA Healthplan of Ohio, Inc.—Columbus (Columbus, OH)
CIGNA Healthplan of South Florida (Miami Lakes, FL)
CIGNA Healthplan of St. Louis (Clayton, MO)
CIGNA Healthplan of Texas (Irving, TX)
CIGNA Healthplan of Washington, Inc. (Seattle, WA)
CaliforniaCare (Woodland Hills, CA)
Capital Area Community Health Plan, Inc. (Latham, NY)
Capital District Physicians' Health Plan (Albany, NY)
Capitol Health Care (Salem, OR)
Care Choices Health Plans/Mercy Alternative (Farmington Hill, MI)
Care Plan HMO (Fargo, ND)
CareAmerica Health Plan, Inc. (Chatsworth, CA)
CareChoice—Chattanooga (Chattanooga, TN)
Carlecare, Inc. (Urbana, IL)
Central Massachusetts Health Care, Inc. (Worcester, MA)

Central Medical Health Plan (Pittsburgh, PA)
Central Minnesota Group Health Plan (St. Cloud, MN)
Chicago HMO, Ltd. (Chicago, IL)
ChoiceCare (Cincinnati, OH)
ChoiceCare—Long Island (Uniondale, NY)
ChoiceCare of Kentucky (Crestview Hills, KY)
Clinicare (Rockford, IL)
CoMED HMO—A Total Health Company (Denville, NJ)
Columbia Medical Plan, Inc. (Columbia, MD)
Community Blue, HMO of Blue Cross of Western New York, Inc. (Buffalo, NY)
Community Choice Health Plan, Inc. (Marshfield, WI)
Community Health Care Plan (New Haven, CT)
Community Health Group (Chula Vista, CA)
Community Health Network (Baton Rouge, LA)
Companion Health Care Corporation (Columbia, SC)
Compass Health Care Plans (Chicago, IL)
Compcare Health Services Insurance Corporation (Milwaukee, WI)
Complete Health, Inc. (Birmingham, AL)
Comprecare (Birmingham, AL)
Comprecare, Inc. (Aurora, CO)
Comprehensive Health Services, Inc. (Detroit, MI)
ConnectiCare, Inc. (Farmington, CT)
Constitution Health Network (Meriden, CT)
Contra Costa Health Plan (Martinez, CA)
DAKOTACARE (Sioux Falls, SD)
DeanCare HMO (Middleton, WI)
Delaware Valley HMO (Concordville, PA)
Delmarva Health Care Plan, Inc. (Easton, MD)
Deseret Healthcare (Salt Lake City, UT)
EQUICOR Health Plan (Brentwood, TN)
EQUICOR Health Plan Of Utah, Inc. (Salt Lake City, UT)
EQUICOR Health Plan of Florida Inc. (St. Petersburg, FL)
EQUICOR Health Plan, Inc. (Glen Allen, VA)
EQUICOR Health Plan, Inc. (Wichita, KS)
EQUICOR Health Plan, Inc.—Statewide Network (Phoenix, AZ)
Eau Claire Health Protection Plan (Wausau, WI)
Educators Health Care, Inc. (Murray, UT)
Empire Blue Cross & Blue Shield Healthnet (New York, NY)
Employees Choice Health Option (Salt Lake City, UT)
Employer's Health Care Plan (Green Bay, WI)
FHP, Inc. (Fountain Valley, CA)
FIRSTSOURCE, Inc. (Albuquerque, NM)
Fallon Community Health Plan (West Boylston, MA)
Family Health Plan (Toledo, OH)
Family Health Plan Cooperative (Elm Grove, WI)
Family Health Plan Corporation (Newton, KS)
Family Health Plan, Inc. (Miami Lakes, FL)
First Plan HMO (Two Harbors, MN)
Florida Health Care Plan Inc. (Daytona Beach, FL)
Foundation Health Plan (Gold River, CA)
Foundation Health Plan (Endwell, NY)
Foundation Health Plan of New Mexico (Albuquerque, NM)
Free State Health Plan, Inc. (Cockeysville, MD)
Freedom Health Care (Wayne, PA)
Geisinger Health Plan (Danville, PA)
George Washington University Health Plan, Inc. (Washington, DC)

Grand Valley Health Plan (Grand Rapids, MI)
Greater Wisconsin Rapids Health Protection Plan (Wausau, WI)
Green Bay Health Protection Plan (Wausau, WI)
Group Health (Rochester, NY)
Group Health Association, Inc. (Washington, DC)
Group Health Cooperative of Eau Claire (Eau Claire, WI)
Group Health Cooperative of Puget Sound (Seattle, WA)
Group Health Cooperative of South Central Wisconsin (Madison, WI)
Group Health Northwest (Spokane, WA)
Group Health Plan, Inc. (St. Louis, MO)
Group Health, Inc. (Minneapolis, MN)
Guam Memorial Health Plan (Agana, GU)
Gulf South Health Plans, Inc. (Baton Rouge, LA)
HEALS, Personal Care Physician Health Plan (Emeryville, CA)
HEALTH OPTIONS, INC. (Jacksonville, FL)
HIP Network of Florida, Inc. (Ft. Lauderdale, FL)
HIP of New Jersey (Robbinsville, NJ)
HMO America—Indiana, Inc. (Chicago, IL)
HMO Colorado (Denver, CO)
HMO Health Ohio/BC & BS of Ohio (Cleveland, OH)
HMO Kansas, Inc. (Topeka, KS)
HMO Kentucky, Inc. (Louisville, KY)
HMO Nebraska, Inc. (Omaha, NE)
HMO Rhode Island (Providence, RI)
HMO Virginia, Inc. (Richmond, VA)
HMO Washington (Seattle, WA)
HMO Wyoming (Cheyenne, WY)
HMO of North Carolina, Inc. (Durham, NC)
HMO of Northeastern PA (Wilkes-Barre, PA)
HMO of Wisconsin Insurance Corporation (Prairie du Sac, WI)
Harris Health Plan (Fort Worth, TX)
Harvard Community Health Plan (Brookline Vil., MA)
Harvard University Group Health Plan (Cambridge, MA)
Hawaii Medical Services Association/Community Health Program (Honolulu, HI)
Health Alliance Plan (Lakeland, FL)
Health Alliance Plan of Michigan (Detroit, MI)
Health Care Plan, Inc. (Buffalo, NY)
Health First, Inc. (Atlanta, GA)
Health Guard (Bellaire, OH)
Health Insurance Plan of Greater New York (New York, NY)
Health Maintenance Group Birmingham Division (Birmingham, AL)
Health Maintenance Plan (Cincinnati, OH)
Health Maintenance of Indiana (Indianapolis, IN)
Health Net (Van Nuys, CA)
Health Network of Colorado Springs, Inc. (Colorado Spring, CO)
Health New England (Springfield, MA)
Health One (Columbus, OH)
Health Plan Hawaii (Honolulu, HI)
Health Plan of Central Illinois, Inc. (Peoria, IL)
Health Plan of Nevada, Inc. (Las Vegas, NV)
Health Plan of the Redwoods (Santa Rosa, CA)
Health Plan of the Upper Ohio Valley, Inc. (St. Clairsville, OH)
Health Power of Columbus/Family HealthNet of Ohio (Columbus, OH)
Health Power of Dayton, Inc. (Columbus, OH)
Health Services Medical Corp. (Baldwinsville, NY)
HealthAmerica Corporation of Pennsylvania (Pittsburgh, PA)

HealthAmerica of Pennsylvania, Inc. (Camp Hill, PA)
HealthCare Corporation of the Mid-Atlantic (Baltimore, MD)
HealthCare, Inc. (North Haven, CT)
HealthChicago, Inc. (Lisle, IL)
HealthGuard Services, Inc.—SelectCare (Eugene, OR)
HealthGuard of Lancaster Inc. (Lancaster, PA)
HealthKeepers of Virginia, Inc. (Richmond, VA)
HealthOhio, Inc. (Marion, OH)
HealthPlan Southeast (Tallahassee, FL)
HealthPlus (Seattle, WA)
HealthPlus of Michigan (Flint, MI)
HealthPlus, Inc. (Riverdale, MD)
HealthWays, Inc. (Iselin, NJ)
HealthWise (Lexington, KY)
Healthcare Delaware (Wilmington, DE)
Healthsource Maine (Yarmouth, ME)
Healthsource New Hampshire (Concord, NH)
Healthsource South Carolina (Charleston, SC)
Heart of America HMO (Rugby, ND)
Heritage Health Plan of South Florida (Miami, FL)
Heritage National Healthplan, Inc. (Davenport, IA)
Holzer Health Plan (Columbus, OH)
HomeTown Hospital Health Plan (Massillon, OH)
Hospital Choice Health Plan (Worthington, OH)
Hospital Sisters HMO Corp. of Illinois/Unity Health Plan (Springfield, IL)
Humana Health Care Plan, Inc. (Lexington, KY)
Humana Health Care Plans (Louisville, KY)
Humana Health Care Plans (Miami, FL)
Humana Health Care Plans (Orlando, FL)
Humana Health Care Plans (Ormond Beach, FL)
Humana Health Care Plans (Tampa, FL)
Humana Health Plan (Phoenix, AZ)
Humana Health Plan of TX, Inc. (Corpus Christi, TX)
Humana Health Plan of TX, Inc. (San Antonio, TX)
IHC Care, Inc. (Salt Lake City, UT)
Illinois Masonic Community Health Plan (Chicago, IL)
Independent Health Association (Buffalo, NY)
Independent Health of Pennsylvania (Erie, PA)
Independent Prepaid Health Plan (Baldwinsville, NY)
InterValley Health Plan (Pomona, CA)
Intergroup Prepaid Health Services of Arizona, Inc. (Tucson, AZ)
JMH Health Plan (Miami, FL)
John Hancock HealthPlan of Pennsylvania, Inc. (Philadelphia, PA)
Johns Hopkins Health Plan (Baltimore, MD)
Kaiser Foundation Health Plan of Colorado, Inc. (Denver, CO)
Kaiser Foundation Health Plan of Georgia, Inc. (Atlanta, GA)
Kaiser Foundation Health Plan of Kansas City, Inc. (Shawnee Mission, KS)
Kaiser Foundation Health Plan of Mid-Atlantic States, Inc. (Washington, DC)
Kaiser Foundation Health Plan of North Carolina, Inc. (Raleigh, NC)
Kaiser Foundation Health Plan of Ohio, Inc. (Cleveland, OH)
Kaiser Foundation Health Plan of Texas, Inc. (Dallas, TX)
Kaiser Foundation Health Plan of the Northwest, Inc. (Portland, OR)
Kaiser Foundation Health Plan, Inc.—Hawaii Region (Honolulu, HI)
Kaiser Foundation Health Plan, Inc.—N. California Region (Oakland, CA)
Kaiser Foundation Health Plan, Inc.—Southern CA Region (Pasadena, CA)
Kaiser Foundation Health Plan, Inc.—Northeast Region (Hartford, CT)

Key Care Health Plans (Key West, FL)
Keystone Health Plan Central (Camp Hill, PA)
Keystone Health Plan East, Inc. (Bala-Cynwyd, PA)
Keystone Health Plan West, Inc. (Pittsburgh, PA)
Lake Shore HMO (Holland, MI)
Lake Winnebago Health Protection Plan (Wausau, WI)
Licking Memorial Hospital Health Plan (Newark, OH)
Lincoln National Health Plan (Bethesda, MD)
Loma Linda Affiliated Health Plan (Loma Linda, CA)
Lovelace Health Plan, Inc. (Albuquerque, NM)
M.D. Health Plan (New Haven, CT)
M.D. Individual Practice Association, Inc. (Rockville, MD)
MIT Health Plan (Cambridge, MA)
Magna Care Health Plan (Cincinnati, OH)
Matthew Thornton Health Plan (Nashua, NH)
Medical Associates Health Plan, Inc. (Dubuque, IA)
Medical Center Health Plan (Pensacola, FL)
Medical Value Plan (Toledo, OH)
Medical West Community Health Plan, Inc. (Framingham, MA)
Medigroup, Inc. (Cranford, NJ)
Mercy Health Plan (Philadelphia, PA)
Michael Reese Health Plan,Inc. (Chicago, IL)
Mid-Hudson Health Plan, Inc. (Kingston, NY)
Mobile Health Plan (Mobile, AL)
Mohawk Valley Physicians Health Plan (Schenectady, NY)
Mt. Sinai Health Maintenance Organization (Miami Beach, FL)
NWNL Health Network, Inc. (St. Paul, MN)
National Med (Modesto, CA)
Neighborhood Health Plan Inc. (Dorchester, MA)
Network Health Plan of Wisconsin, Inc. (Appleton, WI)
North Central Health Protection Plan (Wausau, WI)
OMNICARE/The HMO (Vineland, NJ)
Ochsner Health Plan of New Orleans (Metairie, LA)
OmniCare Health Plan (Detroit, MI)
Optima Health Plan (Norfolk, VA)
PARTNERS Health Plan of Alabama, Inc. (Birmingham, AL)
PARTNERS National Health Plan of Georgia (Atlanta, GA)
PARTNERS Health Plan of the Mid-Atlantic (Fairfax, VA)
PARTNERS National Health Plan of North Carolina, Inc. (Winston-Salem, NC)
PARTNERS in Health Maintenance of Arizona (Tucson, AZ)
PacifiCare of California (Cypress, CA)
PacifiCare of Oklahoma—Tulsa (Tulsa, OK)
PacifiCare of Oregon and Washington (Tigard, OR)
PacifiCare of Texas, Inc. (San Antonio, TX)
Pacific Health (Seattle, WA)
Patient Care of America (Miami, FL)
Patient's Choice, Inc. (Syracuse, NY)
Peak Health Plan—Colorado Springs Region (Colorado Springs, CO)
Peak Health Plan—Denver (Denver, CO)
Peak Health Plan of Idaho (Boise, ID)
Personal Care Plan of North Carolina, Inc. (Durham, NC)
Personal Physician Care of Ohio, Inc. (Cleveland, OH)
PersonalCare Insurance of Illinois, Inc. (Champaign, IL)
Physicians Health Network (Evansville, IN)
Physicians Health Plan of Mid-Michigan (Lansing, MI)
Physicians Health Plan of North Carolina, Inc. (Greensboro, NC)

Physicians Health Plan of Ohio, Inc. (Columbus, OH)
Physicians Health Plan of South Carolina (Columbia, SC)
Physicians Health Plan of Utah (Salt Lake City, UT)
Physicians Health Service of Connecticut, Inc. (Trumbull, CT)
Physicians Health Services HMO, Inc. (Evansville, IN)
Physicians Health Services of New York, Inc. (White Plains, NY)
Physicians Plus HMO (Madison, WI)
Pilgrim Health Care, Inc. (Norwell, MA)
Prime Health Kansas City, Inc. (Kansas City, MO)
PrimeCare Health Plan of Wisconsin (Milwaukee, WI)
Principal HealthCare of Nebraska, Inc. (Omaha, NE)
Prudential Health Care Plan, Inc.—PruCare of Atlanta (Atlanta, GA)
Prudential Health Care Plan, Inc.—PruCare of Charlotte (Charlotte, NC)
Prudential Health Care Plan, Inc.—PruCare of Memphis (Memphis, TN)
Prudential Health Care Plan, Inc.—PruCare of Nashville (Nashville, TN)
Prudential Health Care Plan, Inc.—PruCare of Orlando (Maitland, FL)
Prudential Health Care Plan, Inc.—PruCare of Richmond (Richmond, VA)
Prudential Health Care Plan, Inc.—PruCare of Tampa Bay (Tampa, FL)
Prudential Health Care System—PruCare of Jacksonville (Jacksonville, FL)
Q Care (Madison, WI)
Rhode Island Group Health Association, Inc. (RIGHA) (Providence, RI)
Rio Grande HMO, Inc. (El Paso, TX)
Rochester Area HMO, Inc. (Rochester, NY)
Rocky Mountain HMO (Grand Junction, CO)
Rutgers Community Health Plan, Inc. (Somerset, NJ)
Samaritan Health Plan (Milwaukee, WI)
Samaritan Health Plan (Phoenix, AZ)
Sanus Health Plan, Inc. (St. Louis, MO)
Sanus Texas Health Plan, Inc.—Dallas and Fort Worth (Irving, TX)
Scan Health Plan (Long Beach, CA)

Scott and White Health Plan (Temple, TX)
Security Health Plan of WI (Marshfield, WI)
SelectCare MedExtend, Inc. (Troy, MI)
Share Health Plan of Colorado (Colorado Springs, CO)
Share Health Plan of Illinois, Inc. (Itasca, IL)
Share Health Plan of Iowa, Inc. (West Des Moines, IA)
Share Health Plan of Minneapolis (Bloomington, MN)
Share Health Plan of Nebraska, Inc. (Omaha, NE)
Sisters of Providence Good Health Plan of Oregon (Portland, OR)
Southeast Health Plan of Alabama, Inc. (Birmingham, AL)
Southern Health Plan, Inc. (Memphis, TN)
Southern Health Services (Richmond, VA)
St. Louis Labor Health Institute (St. Louis, MO)
TakeCare Corporation (Oakland, CA)
Texas Health Plan (Austin, TX)
Total Health Care (Kansas City, MO)
Total Health Care Plan, Inc. (Cleveland, OH)
Trane Health Protection Plan (Wausau, WI)
Tufts Associated Health Plan (Waltham, MA)
United Health Plan (Columbus, OH)
United Health Plan (Inglewood, CA)
University Health Maintenance Organization, Inc. (Cincinnati, OH)
VIP Health Plan/Ventura County HMO (Oxnard, CA)
Valley Health Plan (San Jose, CA)
ValuCare (Fresno, CA)
Welborn HMO (Evansville, IN)
WellCare of New York, Inc. (Newburgh, NY)
West Alabama Health Services, Inc. (Eutaw, AL)
Western Ohio Health Care Plan (Centerville, OH)
Wisconsin Health Organization Insurance Corporation, Inc. (Milwaukee, WI)

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HMO INDUSTRY PROFILE

Volume 3: Financial Performance, 1988

by
Susan J. Palsbo, M.S. and
Marsha Ruth Gold, Sc.D.

1990 Edition
Data from the Group Health Association of America's
Annual HMO Industry Survey

June 1990

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Volumes in the Series

Volume 1: Benefits, Premiums, and Market Structure in 1989
Volume 2: Utilization Patterns, 1988
Volume 3: Financial Performance, 1988

Each volume incorporates analysis of both current characteristics and trends.

PREFACE

These are historic times for the Health Maintenance Organization (HMO) industry. Over the past several years, the industry has had unprecedented expansion, both in the number of plans and in total enrollment; in addition, the characteristics and sponsorship of plans have diversified. In late 1988, major amendments were adopted to the federal HMO Act to provide plans with greater flexibility to respond to market pressures and competitive forces. Indeed, the very success of the HMO approach to providing health care has resulted in the more widespread adoption of some features of HMO practice in the fee-for-service system and led to the considerable focus today on managed care.

Under these circumstances, it is critical that information and analysis exist so that the experience of the most successful models of managed care can be understood. The development of relevant data upon which the structure, performance, and trends in the HMO industry can be assessed is of particular importance. For this reason, the Group Health Association of America, Inc. (GHAA), the oldest and largest trade association representing prepaid managed health care systems, initiated the Annual HMO Industry Survey. The *HMO Industry Profile* is the major vehicle through which data from this survey are distributed.

This series of reports presents the results of GHAA's fourth Annual HMO Industry Survey. In its multiple volumes, the report provides information on a number of dimensions of HMO structure, performance, and trends, including benefits, premiums, utilization rates, and financial measures. Each volume incorporates analysis of both current characteristics and trends.

These reports provide the most comprehensive and detailed set of information on HMOs available, with a range of information virtually unsurpassed by that developed by any other segment of the health care industry. The reports reflect efforts of GHAA's Research and Analysis Department under its Director, Marsha Gold, Sc.D. The reports also would not have been possible to produce without extensive industry cooperation. The considerable time spent by plans in providing data is particularly impressive given today's competitive climate and economic pressures.

Developing a statistical base for any industry is a long-term process. We continue to make improvements in the content and format of the Survey and *Profile* based on feedback from our members and the broad spectrum of other users of the reports. We have been encouraged that the range of information provided has been useful to a diverse set of audiences and we welcome further suggestions or advice as we proceed further with this effort.

James Doherty
President and CEO
Group Health Association of America, Inc.

ACKNOWLEDGMENTS

This volume was prepared by Susan J. Palsbo, M.S., Senior Research Associate, under the direction of Marsha Gold, Sc.D., GHAA's Research and Analysis Director. Dennis Hodges, M.S.P.H., Research Associate, was responsible for all aspects of survey operations related to the GHAA's Annual HMO Industry Survey. Mr. Hodges also computed the aggregate industry-wide revenues and income. Kevin Camerlo and Ingrid Reeves contributed to the data management and editing process. Leela Nelapudi provided secretarial support.

Professor Sam Shapiro of Johns Hopkins University provided advice on survey methods, as he has from the initiation of this project. We are particularly grateful to him for his continuing interest and support for this project and for the contribution he has made to it.

As always, we wish to thank all the HMOs that responded to the survey, taking time to collate the requested statistics from across their organizations. Without the support of the industry, this report would not exist.

Susan J. Palsbo, M.S.
Senior Research Associate

Marsha Gold, Sc.D.
Director, Research and Analysis

Dennis Hodges, M.S.P.H.
Project Manager, Annual HMO Industry Survey

June 1990

HIGHLIGHTS

The 1990 edition of this *HMO Industry Profile* is based on the Group Health Association of America's fourth Annual Health Maintenance Organization (HMO) Industry Survey. The mail survey was sent to all HMOs operational on or before January 1, 1988. Findings in this volume are for financial performance in 1988. This volume presents detailed financial information and analyses based on the respondents' year-end financial statements.

The total number of plans responding to the survey was 332. These represent 58% of all surveyed HMOs and 74% of the national enrollment. The subset of 285 plans submitting financial data enrolled 22.7 million members on December 31, 1988. This subset represents 50% of all surveyed HMOs and 54% of plans in operation more than three years ("established plans") in 1988; their members include 70% of the national enrollment for all plans in 1988. *The findings in these highlights refer to established plans.*

Overview of Industry Performance

- The 1988 financial position of the HMO industry was greatly improved from 1987, although it did not regain the profitability levels it enjoyed in 1985 and 1986. A larger proportion of plans (46%) reported gross profits than in the previous year, reversing a decline since 1985. Preliminary studies indicate that the improvement continued in 1989.

- Based on estimates from submitted data, the HMO industry lost $1.39 billion before taxes on revenues of $33.3 billion. This rate of return on revenues (–4.2%) is the same as in 1987 in aggregate, when only 38% of the industry reported a gross profit.

- Values for the ten draft Solvency Surveillance Indicators improved in 1988, but most gains were not statistically significant. The largest gains were made in total assets per member and net profit margin.

Financial Performance and Ratios, 1988

- The capital structure of the industry changed in several ways from 1987. First, the average total assets per member increased 33% from $243 to $324. Most of these total assets were "current assets" rather than fixed, restricted, or long-term assets. Second, HMOs reduced their long-term debt but increased their current liabilities. Consequently, the current ratio (current assets ÷ current liabilities) was virtually unchanged from 1987 to 1988 and slightly less than 1.00. Third, average equity per member per month nearly doubled, from $2.73 in 1987 to $4.06 in 1988. The increased equity offset the increased total debt, so the average total debt to equity ratio declined from 6.1 to 4.7 in 1988.

- HMOs narrowed the spread slightly between days cash on hand and claims payable from 37.3 days in 1987 to 36.7 days in 1988. Median days cash on hand lengthened 8.6 days in 1987 to 10.7 days in 1988, but median days claims payable increased 1.5 days from 45.9 to 47.4.

- Profit margins in 1988 improved from 1987, and the typical HMO was within 1% of breaking even. The median operating profit margin was –0.6%; the median gross and net profits were –0.4% and –0.2%, respectively.

- In dollar terms, the median per member per month operating income rose from –$1.29 in 1987 to –$0.48 in 1988. Established plans in operation less than eight years had a median income of –$1.23, while plans in operation 16 years or more had a median income of $0.83. Nonprofit plans did not do as well as for-profit plans, which nearly broke even (–$0.63 versus –$0.02).

- Rates of return also improved from 1987. The median gross return on assets (GROA) was –3.9%, and the median gross return on revenues (GROR) was –0.9%. Staff models were the only model type with positive median returns (GROA = 0.4%, GROR = 0.1%). The median gross return on equity (GROE) for established plans improved from –14% in 1987 to 0.6% in 1988. All model types except IPAs had positive median GROEs (staff = 8.1%, group = 3.7%, network = 4.1%, IPA = –9.8%).

- Activity ratios showed very little change between 1987 and 1988. The median premium receivable turnover, current asset turnover, and total asset turnover rates were 0.5, 5.5, and 3.7, respectively. Total asset turnover showed the widest variation in median rates by model type (staff = 2.9, group = 3.4, network = 4.1, IPA = 4.0).

- The median health care expense ratio was 92%. Group models had a significantly higher average ratio at 96% compared with other model types. The median administrative expense ratio was 12%. This ratio declined significantly with increasing plan age, from 14% for plans in operation 4–7 years to 11% for plans in operation 16 years or more.

- On average, the expenses for plans with 20,000–49,999 members exceeded gross income by nearly 10%. Since gross income is the numerator in many financial ratios, this plan category had consistently low financial measures.

Revenue Sources and Expenses

- Plans' median revenue per member per month was $73.68 in 1988. The sources of revenues were unchanged from 1987: 84% from premiums, 12% from Medicare and Medicaid, and the balance from copayments, coordination of benefits, or unspecified other. The average revenues varied significantly by region and size, with plans in New England collecting $15–$20 more than plans in the Mid-Atlantic and East Central states.

- Plans' median per member per month expense was $78.22 in 1988, distributed similarly as in 1987: hospitalization 34%, medical 54%, and administration 12%. Expenses varied significantly by region, with plans in the New England region spending the most on medical and hospital costs, and plans in the South Atlantic spending the most on administrative costs.

- Healthcare expenses did not vary by plan characteristic. In contrast, professional expenses varied considerably by model type, with networks and IPAs reporting greater expenditures in plan than group and staff models. Staff models report greater expenditures for non-physicians in their delivery systems.

- The average expense for 33 plans reporting data on Medicare enrollees in 1988 was $187.77 per Medicare beneficiary member per month.

- The average expense for 17 plans reporting data on Medicaid enrollees in 1988 was $68.00 per Medicaid member per month.

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I. INTRODUCTION

This report, the last of a three-volume series, profiles the financial performance of the Health Maintenance Organization (HMO) industry in 1988. The report is based on the fourth Annual HMO Industry Survey of the Group Health Association of America, Inc. (GHAA). The three volumes are:

1. Benefits, Premiums, and Market Structure in 1989
2. Utilization Patterns, 1988
3. Financial Performance, 1988 (this volume).

Trend analysis is incorporated into each volume, as well as selected special topics collected on a periodic rather than annual basis.

The key findings of this volume are in the highlights section. The text summarizes general findings on the overall profitability of the industry, financial ratios and on HMO expenses and revenue sources. Financial trends for selected measures are presented in Chapter VI. The final section of this volume contains the detailed tables. Most tables report the mean, median, 75th and 25th percentiles for all respondents and for plans over three years old ("established plans"). The text emphasizes the characteristics of established plans. Most tables also show separate data for established plans which had gross profits versus those which had gross losses.

The volume addresses the interests of HMOs, employers, industry analysts and regulators, health services researchers, policy makers and others by reporting standard financial ratios. These ratios provide industry-wide reference points for comparing individual plans.

As the HMO industry has grown and diversified, the demand for data on it has increased. According to the most recent GHAA data, 591 HMOs enroll over 34.7 million Americans.[1] One in seven Americans is enrolled in an HMO, and this number is likely to grow considerably within 10 years.[2]

An increasing number of employers offer HMOs in part because they provide a vehicle to providing a fairly comprehensive benefit package at a reasonable cost. The same cost concerns lead many employees to select this option. For example, 62% of employers responding to a recent health benefits survey indicated that they offered HMOs in 1988 and 33% of all eligible employees joined.[3] According to the U.S. Bureau of Labor Statistics, HMO market share for employer-provided health insurance by large and medium sized firms grew to 19% in 1988, up from 13% in 1986 and 7% in 1985; HMO market penetration in some areas, such as California and Minnesota, is higher.[4] HMOs are being similarly considered by other payers such as Medicare and Medicaid, although the percentage of HMO enrollment from these programs is still relatively small.

GHAA, founded in 1959, is the oldest and largest national association representing prepaid, managed health care systems. The GHAA Annual HMO Industry Survey was initiated four years ago as one of several strategies designed to address the need for information on the industry as it grows and evolves. This survey represents the most comprehensive recent effort to examine characteristics of HMOs.

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[1] These data are based on figures included in *GHAA National Directory of HMOs, 1990* (Washington, D.C.: June 1990). The statistics are as of December 31, 1989. Total enrollment at that time was 34,748,354.

[2] Actual enrollment percentages vary widely by geographical areas; nationally HMO enrollment includes 14% of the population of the United States (*Ibid*). There are difficulties in projecting future trends; differing estimates have been made. Kenneth Abramowitz of Sanford C. Bernstein and Company has estimated that 25% of the private pay population would be in HMOs by 1992 and 40% by 1997 (Kenneth S. Abramowitz, *Future of Health Care Delivery in America*, New York: Sanford C. Bernstein and Company, Inc., 1988, pp. 26-27). More conservative estimates have placed HMO enrollment in 1995 at 20-30% of the population (Karen Davis et al., *Health Care Cost Containment*, Baltimore: Johns Hopkins Press, 1990). These estimates are based on an Arthur D. Little study predicting 25-30% enrollment and an Alex Brown estimate predicting 20-25% enrollment.

[3] *Foster Higgins Health Care Benefits Survey 1989* (New York: A. Foster Higgins and Company, Inc., 1989). These results are based on a survey of over 1,943 employers with programs covering 12.4 million employees. The survey was distributed through 42 business coalitions in August 1989; the respondents may not be representative of all employers. Compared to the 1988 survey, the percentage of employers offering an HMO was relatively constant as was the percentage of employees enrolled after considerable growth in 1986 and 1987. In 1986, 54% of employers offered HMOs and 19% of eligible individuals were enrolled (*Johnson Higgins Corporate Health Care Benefits Survey 1986*). According to the Survey, virtually all very large employers (over 20,000 employees) offer HMOs, as do over three quarters of employers with over 1,000 employees.

[4] Bureau of Labor Statistics, *Employee Benefits in Medium and Large Firms, 1988*, Bulletin 2336 (Washington, D.C.: U.S. Bureau of Labor, August 1989). For information on HMO market penetration by state, see GHAA's *National Directory of HMOs 1990*. These data indicate that at year end 1989, 30.8% of all California residents, and 28.3% of Minnesota residents were enrolled in an HMO.

II. OVERVIEW OF METHODS

Data Source and Methods

The fourth Annual HMO Industry Survey was a mail survey sent to all HMOs listed in the *GHAA National Directory of HMOs, 1989*, which includes all HMOs, regardless of type or GHAA membership status. The survey was restricted to those plans operational on or before January 1, 1988.[5] The lengthy questionnaire covered a variety of topics, including plan characteristics, the structure of various benefits offered, premium rates and rate-setting methods, enrollment and utilization, employer data requests, diversification, and financial performance. Respondents could submit copies of the National Association of Insurance Commissioners (NAIC) "Orange Blank" instead of completing the utilization and financial sections of the survey. Some respondents submitted copies of audited financial reports instead of completing the financial part of the survey. Data from these accompanying reports were extracted by GHAA and coded on the survey forms.

The questionnaires were mailed in mid-April 1989; a postcard was sent as a reminder to respond a month later, and a second mailing to HMOs that had not responded took place three weeks later in the second week of May 1989. In late June 1989, personalized follow-up letters were sent to all nonresponding plans that had responded to previous surveys; some telephone calls for follow-up were also selectively made.[6] In the survey, confidentiality of data was assured. Most questions referred to status as of March 31, 1989. Utilization and financial statistics were requested for 1988 because plans can most readily provide these on a calendar year basis. Although survey execution and content was generally consistent with prior years, the timing of the Survey and data request period for items covered in volume 1 was shifted to enhance the timeliness and utility of the resulting analysis.[7]

The survey was sent to 580 of the 614 plans listed in the *Directory*, with the remaining 34 plans excluded because their operational dates were after January 1, 1988. Based on the Survey responses, 10 were eliminated from the sampling frame. This was because the responding plans indicated that component plans surveyed were more appropriately aggregated as a single plan or, as in one case, a plan had terminated operations. The net impact of these changes was that 570 plans were considered in identifying the level of response to the survey.[8]

Response Analysis

A total of 332 plans responded to the survey. The Appendix contains a listing of these plans. Overall, respondents to the survey represent 58.2% of all plans operational in 1988; their 23.7 million members include 73.5% of all enrollees in HMOs in the

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[5] This was done because very young plans may not be sufficiently established to result in meaningful responses to a number of the items covered in the survey (e.g., utilization and financial performance) and their structures may not be very stable. In addition, we wished to reduce the administrative burden on these very young plans. Although this criteria eliminated a number of plans, the HMO enrollment in these plans is small. We did not feel that omitting these plans would detract from the ability to generalize to the HMO industry.

[6] Returned questionnaires were logged and manually reviewed and edited. A limited number of telephone calls were made to clarify responses to individual items or verify potentially erroneous data (e.g., employer contribution rates of less than 50% to verify that the employee-employer share had not been transposed). SPSS-PC software was used to analyze the results.

[7] This represents the second and final stage of a shift to a spring collection cycle, linked to a decision to use a different and more current request date for other than utilization and financial data. An April collection date allows for the most current utilization and financial reporting which is feasible. Because the majority of contracts renew in January, the largest shifts in plan benefits, premiums, and market structure activities are linked to this period. The March 31, 1989 collection date provides data which probably is reasonably representative of that which is occurring for that calendar year. As noted in the User's Note at the outset of this volume, a few items without rapid change (on Membership Composition and for detail on some specific benefits offered by HMOs) were omitted during the transition year to ease the burden on plans surveyed only six months before and to enhance the response rate to the Survey.

[8] In addition, a small number of responding plans submitted more aggregated statistics for the utilization and financial data in situations. In particular, for plans in two states a unified submission was made for several plans of common ownership in that state. These consolidations which have a small effect on analysis for volumes 2 and 3 of this Survey were allowed to maximize the response rate to the Survey and enhance its generalizability. However, a few other submissions were not allowed when the aggregate appeared inconsistent with Survey intent, which is to profile the HMOs in the industry (e.g. a submission merging data based on both HMO and preferred provider organization operations for a single plan).

United States at year end 1988.

Appendix Table A-1 includes a tabular display of response rates for various types of plans, based on year end 1988 information included in GHAA's *National Directory of HMOs, 1989*, which was the source used in identifying plans surveyed. General findings and patterns of results are summarized here.

The response rate to the survey for established plans (those operational for over three years) was 63%, which was higher than that for new plans (those operational for three years or less), at 48%. With the maturation of the industry, 70% of all plans surveyed in this cycle—and 92% of the enrollees in these plans—were in the established plan category. As a result, statistics for these plans provide a reasonable representation of the typical experience of most HMO enrollees.

Within established plans, 48% or more of all plans responded of each plan type which was able to be examined based on data in the Directory. However, the level of response did vary somewhat by plan characteristic. Response rates were higher for plans with eight or more years' operational experience than for younger ones; just under three-quarters of the former responded while 55% of the plans 4–7 years old responded. Response rates also increased with plan size and were higher for nonprofit plans than for for-profit plans (73% versus 56%). Group and network model plans were most likely to respond (73% and 67% respectively); IPAs had the lowest response rate (59%) of all model types. Some of these patterns can be attributed to the interrelationship of plan age with other characteristics. In addition, GHAA member plans were more likely to respond to the survey (78% versus 48% for nonmembers). There was only limited variation in the response rate for federally qualified and nonqualified plans (65% versus 59% respectively).

Because older and larger plans were more likely to respond to the survey, responding plans represent a larger share of the national HMO enrollment than they do plans. Responding plans represent 74% of the total enrollment of surveyed plans. Responding established plans include 75% of all enrollees nationally in established plans. The responding new plans include 55% of the enrollment nationally in new plans with one year's operational experience or better. Patterns of response by enrollment are similar to those by plan. The differences in response rates for new plans may be related to the intensive organizational efforts needed at the initial operational stage.

Response to Financial Items

Of the 332 responding plans, 285 (86%) submitted financial data for 1988. One plan was excluded from the analysis because it enrolled 1,000 or fewer members. In general, the 284 plans included had a similar profile to the 332 total industry respondents on all characteristics except age. Plans seven years and younger were less likely to respond, while plans eight years and over were more likely to submit financial data than others.

In total, the 284 plans enrolled 22,733,851 members in 1988. Of these plans, 213 were established plans (over three years old) and 71 were new plans (three years or less) in 1988. Because their response rate was better and because their financial statistics were less likely to be influenced by start-up phenomena, the text emphasizes statistics for established plans.

The number of plans that completed all portions of the financial reporting form varied. Moreover, it appeared sometimes that a few HMOs tracked selected expense and revenue sources and aggregated the remainder in the "other" category, whereas other plans were more detailed. For this reason, the number of HMOs included in the analysis of each item is shown on the table for that item. Occasionally, the respondents shown on the table are fewer than the total number of respondents to that item. This is the result of two factors: (1) some analyses required that plans have complete data on several items, and (2) data more than three standard deviations from the mean were trimmed. These omissions also result in some minor inconsistencies across the same statistics in different tables.

Comparison of Respondents to Last Year's Survey

Response rates were higher to this year's survey than to last year's survey, reflecting the institutionalization of the survey process and the growing support for it in the industry. Among established plans, which are the focus for the analysis, the response rate has increased from 44% to 55% to 63% over the past three years. (For all plans, the 58% response rate this year compares to 33% and 45% for the 1988 and 1989 editions of the *Profile*, respectively.)

As response rates have improved, those responding also have become more representative although there are still some differences consistent with the variation in response rates noted above.[9] This increases the ability to generalize from the survey. Unfortunately, it also makes comparisons of year-to-year changes more difficult, particularly for those items which vary considerably by plan characteristic. Hence, differences in respondents across the survey years should be considered in analyzing changes in year-to-year responses to the survey.

Of the 332 plans used in this year's analysis, 204 were included in the 259 plans responding last year. This could understate the overlap across years to some extent because of industry consolidation and the difficulty of tracking plans of changing ownership. A greater degree of overlap also is likely for established plans since their response rates have been higher to the survey.

Analytical Techniques and Survey Limitations

The GHAA Annual HMO Industry Survey provides the most comprehensive and detailed source of information currently available on the HMO industry; nonetheless, there are limitations that should be recognized in interpreting the data.

The response patterns and omission of very young plans with less than one year's experience mean that the reader should use caution in extrapolating from the tables in this volume to the HMO industry as a whole. To eliminate potentially spurious financial data to make the average for established plans more representative, plans with fewer than 1000 enrollees (three respondents) were eliminated from the analysis, very extreme data points (values more than 10 times the adjacent value) were eliminated, and data points greater than three standard deviations from the mean were excluded. This occasionally led to the exclusion of valid data. For example, some HMOs received a very high percentage of revenue from Medicare, because 50% of their enrollment was Medicare. Their data for the measure of Medicare revenue as a percentage of total revenue were excluded since they exceeded the three standard deviation criterion.

Each table is a bivariate analysis that provides statistics by the plan characteristics of model type, region, size, age, tax status, qualification status, and ownership. This allows users to develop a better estimate for generalizing information to plans with particular characteristics. However, many plan characteristics are interrelated (e.g., IPAs tend to be younger and smaller plans). Small differences within characteristics may be the result of chance.

The unit of analysis is the individual HMO rather than the enrollee. This approach means the findings characterize the industry rather than the typical experience for the average HMO member. Table 1 can be used to estimate how a particular statistic translates into the average experience of HMO enrollees by weighing the statistics given for each plan characteristic by the share of the total HMO enrollment in plans of that type. For example, although findings for plans 16 years old or older apply to only 13% of all respondents submitting financial data, these plans enroll 42% of all enrollees in HMOs that submitted such data.

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[9] For example, the Directory data for 1988 indicate that 55% of all established plans are IPAs versus 52% of respondents to this year's survey. The 54% of established plan respondents organized on a for profit basis compares with 61% of all established plans. The enhanced response by IPAs is particularly notable this year. Similarly, starting last year insurer owned plans became increasingly represented in the survey although the absence of statistical data on the overall number of these plans precludes an assessment of response rates by ownership category.

III. CHARACTERISTICS OF RESPONDING PLANS

This section summarizes the major characteristics of responding plans used in the financial analysis.

Overview of Plan Characteristics

Table 1 presents data on the distribution of responding plans and enrollees among plans of different characteristics. Characteristics of established plans (those operational for over three years) are discussed first, followed by those of new plans (those operational for three years or less).[10]

Plans Operational for Over Three Years

Table 1 shows the distribution of HMOs by plan characteristic. Of the 284 HMOs used in this financial analysis, 213 (75%) had been operational for over three years ("established plans"). These plans enrolled 93% of all enrollees in responding plans. Table 1 also includes the distribution of profitable and unprofitable plans by characteristic.

Fifty-three percent of the established plans were IPAs, 13% networks, 17% groups and 17% staff models. Group models included the largest share (40%) of the total enrollment, with IPAs including the next largest share (33%). Comparatively fewer of the established plans were federally qualified (71% versus 79%) than last year. This change reflects the much larger number of responses from nonqualified plans. The percentages for for-profit and nonprofit plans switched from 1987, with 47% of the plans now being nonprofit and 53% being for profit. This reflects an increased response rate from for-profit HMOs.

Established plans were located nationwide but were concentrated in the East Central region. The distribution of ownership is nearly identical to that for 1987: the largest proportion of HMOs were independent HMO plans (32%), enrolling 34% of the members, while another 32% of HMO enrollees were in the 14% of plans which were affiliated with independent national HMO chains.

Exhibit 1 shows the number, average age and average enrollment of established plans by model type and region. This exhibit is helpful in interpreting the patterns of findings in this volume because of the interactions among model type, age, size, and region.

Plans Operational for Three Years or Less

Plans operational for three years or less (new plans) comprised 25% of the respondents to the financial portion of the survey and 7% of the total enrollment of all the respondents. In comparison to established responding plans, the new plans were considerably more likely to be IPAs (75% of responding plans), for-profit (80%), and nonfederally qualified (65%). They also were considerably more likely to be owned by commercial insurers (25%) or providers (37%).

Sixty-nine percent of plans had fewer than 20,000 members and only 7% of plans had 50,000 members or more. New plans were more likely than established ones to be based in the East Central region and less likely to be based in the Mid-Atlantic and Mountain/Pacific regions.

Comment on the Nature of Various Plan Characteristics

HMOs are complex organizations. As a result, any method of classification results in some simplification. In considering plan characteristics, readers may want to be aware that some plans use a mix of HMO models, obtain federal qualification for some service areas only, or may have an ownership pattern which is complex.

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[10] For this purpose, the years in operation are computed based on plan reports of the date they became operational; any year in which a plan was operational for part of the year is considered as a full year. For simplicity, all plans with an initial year of operation in 1986 or later are considered to have three or fewer years in operation for analyses in this volume.

Exhibit 1
Number, Average Age and Average Enrollment, by Region,
Plans Over Three Years Old, 1988

	New England	Mid-Atlantic	South Atlantic	East Central	West Central	Mountain/ Pacific	All Regions
All Models	21	38	46	81	42	56	284
Mean Enrollment	89,826	79,621	51,292	54,650	47,686	161,303	80,026
Mean Age	8.6	7.7	6.3	6.7	6.0	10.9	7.6
Staff	6	5	4	12	4	8	38
Mean Enrollment	127,844	84,671	50,227	45,773	108,080	203,136	104,980
Mean Age	16.0	11.6	21.8	8.3	14.5	18.9	14.1
Group	2	6	7	11	8	10	44
Mean Enrollment	98,441	200,614	67,753	95,054	38,840	530,596	194,025
Mean Age	10.0	15.0	6.4	8.6	5.1	21.7	11.5
Network	(none)	6	2	11	7	10	37
Mean Enrollment		25,095	65,648	59,775	42,327	84,025	56,303
Mean Age		3.3	6.5	9.0	11.6	7.5	7.8
IPA	13	21	33	47	23	28	165
Mean Enrollment	70,955	59,427	47,060	46,261	41,891	45,060	49,199
Mean Age	5.0	6.0	4.4	5.3	3.2	5.9	5.0

Source: GHAA's Annual HMO Industry Survey

GHAA in its analyses of plans bases results on the predominant model types, asking plans to determine which definition among four choices—staff, group, network, and IPA—best describes their plan.[11] However, plans may have multiple types of arrangements with physicians to develop a provider network appropriate to the service area of the plan and its characteristics. These arrangements could result in use of plan components representing a variety of HMO models.

For example, 29% of all established plans responding to the survey (versus 20.7% of new plans) have components in their plans reflecting other than their predominant model type. Staff model plans are most likely to use such components (61.0%), followed by network model plans (51.3%). Group model plans and IPAs are least likely to use them (27.5% and 17.4% respectively). Of plans using mixed models, approximately three-quarters of their enrollment is included in the predominant model type, on average.

Federal qualification also may be handled diversely within a single plan, with plans federally qualified in some service areas and not others. Of the 63.7% of all federally qualified established plans, 46.9% were federally qualified in all service areas and 16.8% in some service areas. Of the 31.0% of new plans federally qualified, 24.1% were qualified in all service areas.

HMO ownership also is complex. The categories used were selected to highlight major differences in types of plans by ownership. However, plans may not fit in any one category and for some uses, composites of categories or alternative categories could be more appropriate.

For example, in some cases, insurers have combined with provider organizations in a joint venture to establish HMOs. In cases where the insurance company appeared to have most ownership, these plans or chains were classified as "other insurer." This was done to allow for a separate profiling of most of the plans sponsored by commercial insurers. Hence, insurer-owned plans also include some plans with shared provider ownership.

Plans considered in national HMO chains represent a diverse set of plans with characteristics that could vary considerably in terms of their impact on performance. Most of these chains represent multistate HMO organizations which are not owned by insurers or providers. In addition, some of the plans included in this category include part ownership by insurers or providers, with no particular party of clear dominance.

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[11] The following definitions are used in the GHAA Annual HMO Industry Survey: (1) *staff*, an organized prepaid health care system that delivers health services through a salaried group that is employed by the HMO unit, (2) *group*, an organized prepaid health care system that contracts with one independent group practice to provide health care services, (3) *network*, an organized prepaid health care system that contracts with two or more independent group practices to provide health services, and (4) *IPA*, an organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations of physicians in independent practice, and/or with one or more multi-specialty group practices (but the plan is predominantly organized around single solo-specialty practices to provide health services).

Provider-owned plans include both independent HMOs and those that are part of national chains. Hence, a complete inventory of plans owned by national chains (versus independently owned) would include some plans in this category, as well as those in the national HMO chain category and almost all of the plans in the other insurer category.[12]

Finally, depending on the purpose, some may want to consider both independent HMOs and other HMO categories together. The eight plans in the other category include cooperatives, university-sponsored plans, church-owned plans, public plans, and other similar kinds of HMOs. These plans, particularly those not publicly owned, share a number of characteristics with some of the independently owned plans.

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[12] Although Blue Cross-Blue Shield plans are affiliated nationally, there is no national ownership. These plans are based in the states and involve ownership arrangements with the state or more locally based Blue Cross and/or Blue Shield organization. Hence, they form a unique category from both national chains and independent plans.

IV. 1988 INDUSTRY RATIOS

This chapter describes the 1988 financial ratios of the HMO industry. It reviews overall profitability in 1988 and analyzes the role of plan age, size, region and model in the results. Unless otherwise noted, all findings apply only to established plans.

The "Guide to Detailed Tables" defines the ratios used in this chapter. Most tables include industry-wide means, medians, 25th and 75th percentiles and include separate means by plan characteristic for profitable and non-profitable established plans. The text and figures emphasize gross performance rather than net performance to allow HMOs to compare themselves against their peer group, regardless of tax status. Thus, "profit" or "profitable" refers to a positive or breakeven gross income, i.e. income before taxes and extraordinary expenses.

All measures for plans were tested using the one-way analysis of variance by the plan characteristics of age, model, size, and region. The test statistic was the F test. If the observed differences were likely to occur at least 95 times out of 100, the group differences were tested using the Tukey "honestly significant difference" test. This test pairs each value within the group. For example, for the characteristic of HMO model type, the test compares all possible pairs: staff versus IPA, staff versus network, staff versus group, IPA versus network, IPA versus group, and network versus group. The Tukey test shows for which pair we can be 95% certain there is difference.

Overview of 1988 Performance

As shown in Figure 1, a larger proportion of the HMO industry had a gross profit in 1988 than in 1987 (46% versus 38%), although many of these profits were very small (Table 3). In aggregate, the HMO industry had the same return on revenues in 1988 as in 1987 (–4.2%): the industry lost an estimated $1.39 billion before taxes and extraordinary expenses, on revenues of $33.3 billion compared to losses of $1.04 billion on revenues of $24.9 billion in 1987.[13] Thus, the absolute increase in total revenues resulting from premium increases and enrollment growth was offset by a simultaneous inflation in expenditures.

The percentage of new plans reporting a positive gross income doubled from 13% in 1987 to 28% in 1988.[14] The proportion of the industry with a gross profit in 1988 increased by 10% or more by certain plan characteristics: staff and network model plans, plans under 100,000 enrollees, plans 8–15 years old, and non-federally qualified plans. The improved performance in gross income did not extend to all sectors of the industry, however; the proportion decreased by more than 10% for plans in the South Atlantic and Mountain/Pacific regions.

Figures 1 and 2 show that 1987 appears to have been the low point in the proportion of the industry reporting gross profits, based on the survey respondents who submitted the financial statements. This finding is supported by the response to questions in the survey on whether or not the respondent made a profit in 1988, and how the plan's 1988 performance compared to 1987. Of the 229 respondents from established plans, 49% said they made a profit in 1988. Compared to 1987, their 1988 performance was:

Considerably better:	32%
Somewhat better:	18%
Same:	15%
Somewhat worse:	26%
Considerably worse:	9%

A year-end survey of 43 HMOs showed that 68% of the industry expected their 1989 performance to improve over 1988. In addition, 72% expected to have an operating surplus. This implies that the improvement in the HMO industry continued into 1989 and may have accelerated.[15]

Table 2 contains the distribution of plans with positive operating, gross, and net incomes in 1988 (44%, 46%, and 47%, respectively). Higher percentages of network and staff models (57% and 54%) had a gross profit than group and IPA models (40% and 43%). The percentage of plans with a gross profit varied widely by geographic area, from a high of 60% in New England to a low of 30% in the South Atlantic. The percentage of profitable plans also varied widely by plan ownership, with independently owned plans doing the best as a group (62% profitable) and plans owned by commercial insurers doing the poorest (21% profitable). These results probably also reflect differences in plan age and size for various ownership categories.

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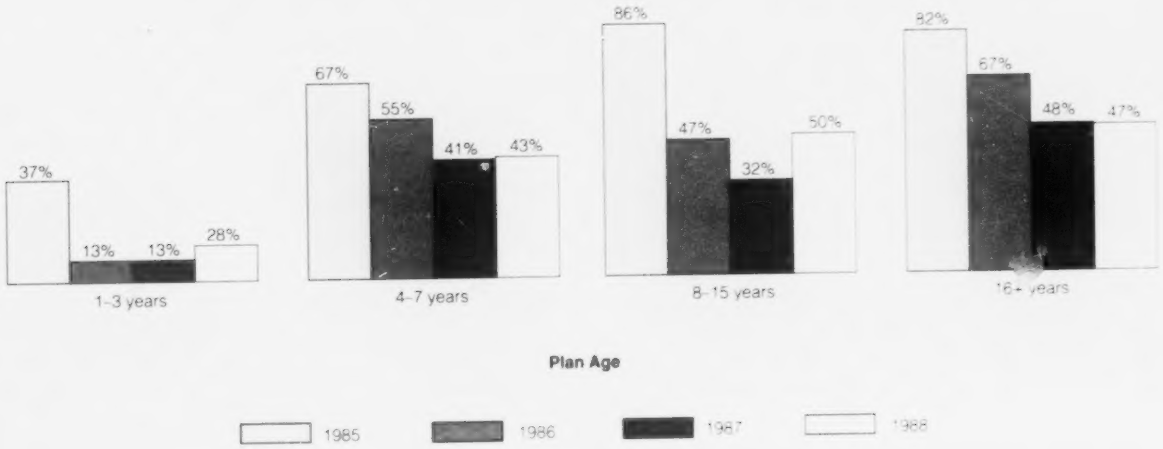
[13] This estimate is based on regression models of revenues and expenses by plan type and enrollment size.

[14] Percentages for new plans omit plans in operation less than a year, which were not surveyed.

[15] Marsha Gold, Dennis Hodges, and Kevin Camerlo, *HMO Market Position Report: Results of a November 1989 Member Plan Survey*, Washington, D.C.: Group Health Association of America, December 1989.

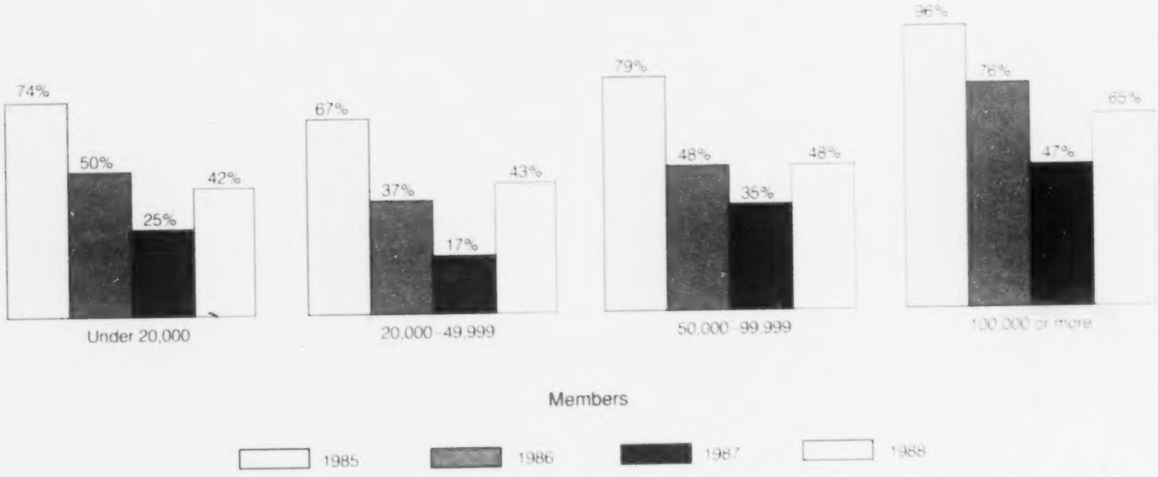
The relative performance within plan characteristic varied somewhat when using operating in-

Figure 1
Percentage of HMOs with a Gross Profit by Age, All Plans, 1985–1988*



*Percentage of plans in the specified category reporting a profit before taxes and extraordinary items. Plans with 1000 enrollees or fewer are excluded.
SOURCE: GHAA's Annual HMO Industry Survey

Figure 2
Percentage of HMOs with a Gross Profit by Size, Plans Over Three Years Old, 1985–1988*



*Percentage of plans in the specified category reporting a profit before taxes and extraordinary items. Plans with 1000 enrollees or fewer are excluded.
SOURCE: GHAA's Annual HMO Industry Survey

Figure 3a

Distribution of HMO Operating Income by Plan Model, Plans Over Three Years Old, 1988

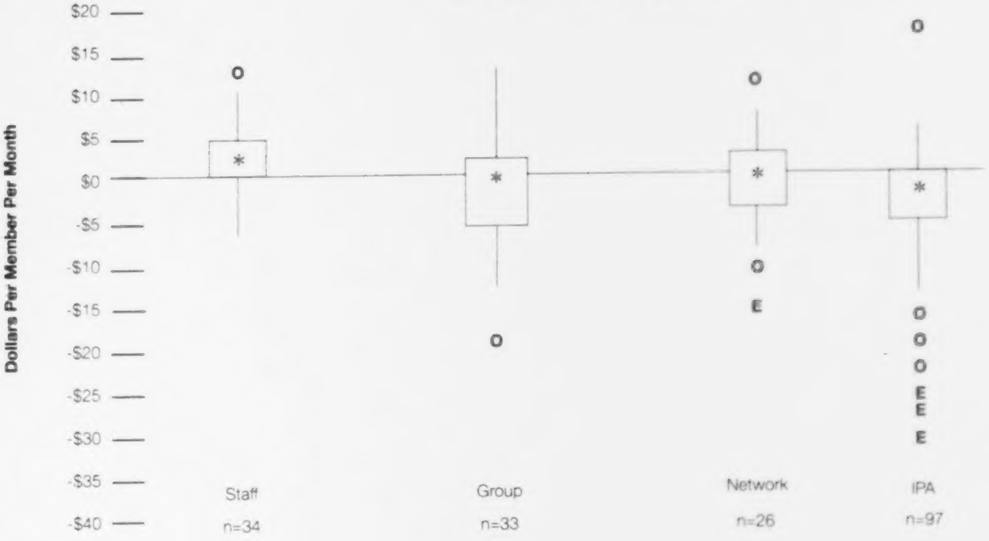
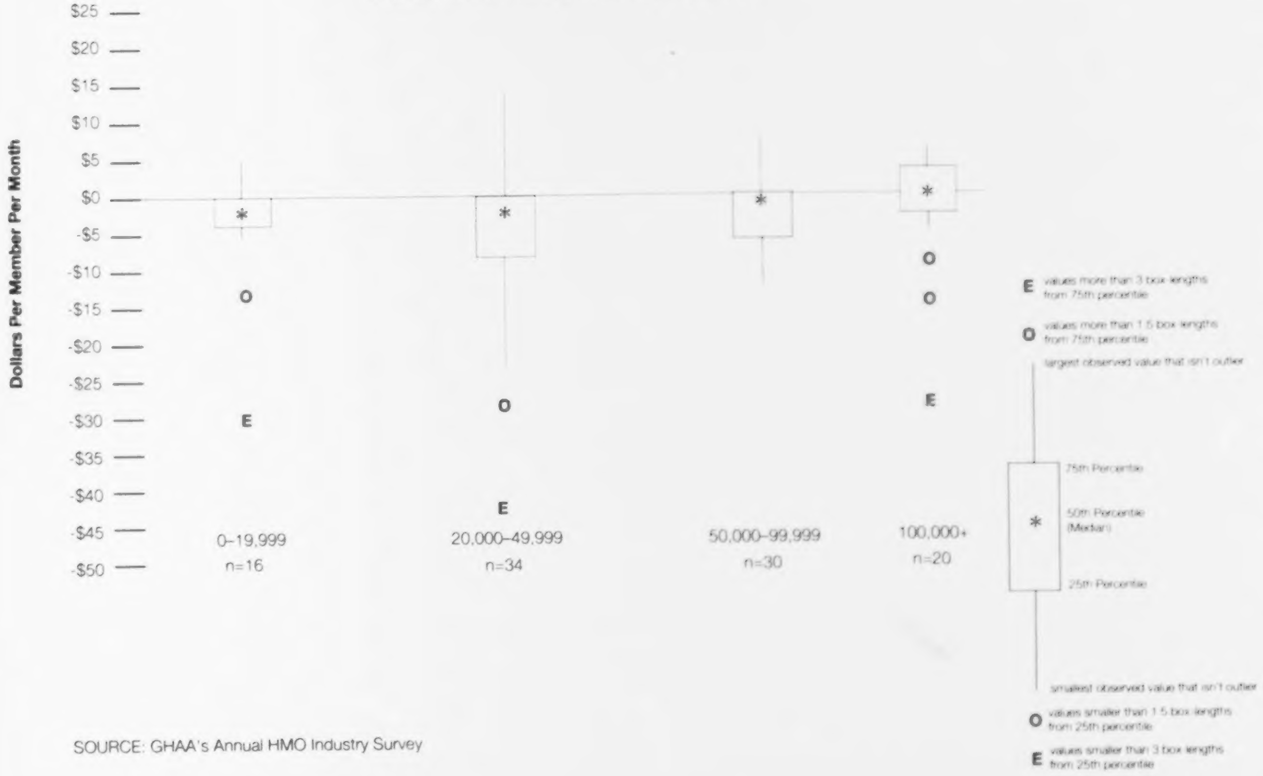


Figure 3b

Distribution of IPA Operating Income by Size, Plans Over Three Years Old, 1988



SOURCE: GHAA's Annual HMO Industry Survey

come instead of gross or net income. For example, a larger percentage of for-profit plans had an operating profit than nonprofit plans (46% versus 41%), but the reverse was true for gross and net profits (49% for nonprofit plans versus 44% for the for-profit plans). Half (50%) of the network models and 62% of staff models had an operating profit compared to 43% of groups and 36% of IPAs.

Table 3 shows the percentile distribution of per member per month (PMPM) income by plan characteristic for operating, gross, and net income. The mean operating income of established plans in 1988 was -$2.07 PMPM. The mean gross income was -$2.58, and the mean net income (income after allowance for taxes and extraordinary items) was -$2.47 PMPM. The median incomes (the income level at which half of the plans did better and half did worse) were all within 50 cents of breakeven (-$0.48, -$0.26, and -$0.15), so most of the industry did much better than the mean income levels indicate.

Figure 3 provides further information on the distribution of plan PMPM operating income about the mean. The box plots in Figure 3a compare the distribution of operating income by model type.[16] Staff models had the least variability while group models had the greatest variability. Because IPA models had the largest number of extreme and outlying values (i.e., a distribution with a very long tail), Figure 3b shows the distribution of operating income by plan size just for IPAs. IPAs with 20,000-49,999 enrollees showed the greatest variation in operating profits—it has the longest box. Figure 3b also shows that 50% of IPAs with 100,000 or more members and 25% of IPAs in each of the other size categories had an operating profit in 1988.

As a group, staff model HMOs had the largest proportion of profitable plans of any model type. They also were the only model type with a positive operating income PMPM (mean = $1.19, median = $0.94); the average income was higher and statistically significant compared to group and IPA models. All other model types had negative operating incomes, with IPAs reporting the largest losses (mean = -$3.25, median = -$0.92). Figure 4 illustrates the significant improvement in mean income with plan age. Median operating income also improved with plan age from -$1.23 for plans age 4-7 to $0.83 for plans 16 years and over, but did not increase linearly with size. The median losses PMPM for plans with 20,000-49,999 enrollees (-$1.61) were more than double the median loss PMPM for smaller plans (-$0.76) and more than triple the loss for larger plans (-$0.48 for plans with 50,000-99,999 members, and $0.41 for plans with 100,000 or more enrollees).

The range of gross and net profits is wider than the range of operating profits. This implies that, while HMOs may be more similar to each other in terms of income and expenses, managing non-

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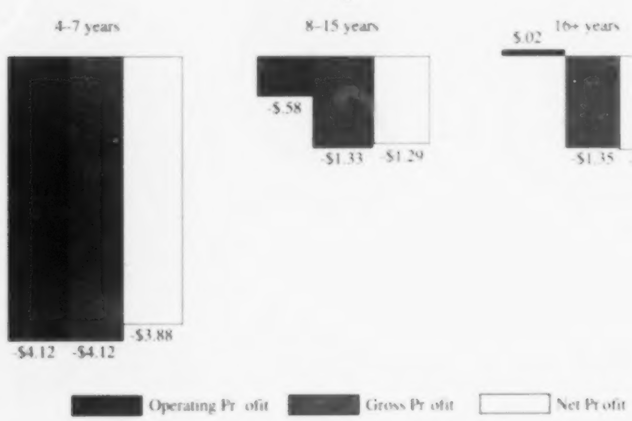
[16] Each plot shows the 75th percentile, the 50th percentile (median) and the 25th percentile, as well as outliers and extreme values. The length of the box shows the spread of the operating profits for the "middle" half of the HMOs for each model type. The figure shows that three quarters of staff HMOs had an operating profit in 1988, while three quarters of IPAs had an operating loss.

Figure 4
Mean Operating, Gross, and Net Income PMPM by Age, Plans Over Three Years Old, 1988



SOURCE: GHAA's Annual HMO Industry Survey

operating income and expenses such as investment income and interest on loans can be important determinants of overall financial standing.

Rates of Return

Table 4 presents mean gross and net rates of return on assets, revenues, and equity. All rates of return reported in the text include plans reporting negative income, since excluding them would give a more positive picture of the industry than is actually the case.[17] Rates of return on equity exclude plans with negative net worth to avoid the problem of a plan with negative income and negative worth appearing as positive as those plans with positive income and positive worth. A separate portion of the table presents rates of return for plans with positive income.

The rate of return on assets (ROA) measures the gross income per dollar of investment; the rate of return on revenues (ROR) measures the gross income per dollar of revenue; and the return on equity (ROE) measures the gross income per dollar of equity. Typically, a company desires positive returns. If it has typical equity for its plan characteristics and if its ratios are above the industry median, the plan is likely to be in a relatively strong financial position.

Since the gross income is the numerator in each of these ratios, and since the mean gross income was negative in nearly every category, the mean rates of return in 1988 were negative for nearly every category of plan and plan characteristic. The mean gross returns on assets, revenues and equity were -0.110, -0.027, and -0.875, respectively. However, the medians were -0.008, -0.003, and -0.006, so most plans did better than the means indicate.

Group models and IPAs had similarly low average rates of return despite being very different model types. This resulted because they had similarly low gross income compared to staff and network models (Table 3), fewer assets per member (Exhibit 2) and lower revenues per person (Table 9). While the ROA and ROR for groups were lower than for IPAs, group models had a higher ROE than IPAs because they averaged over twice as much equity PMPM (Table 6). In contrast, network models had the least negative gross and net incomes (Table 3) and largest assets per member; consequently, networks had the least negative ROA and ROR. Staff models, with the second largest equity PMPM of any model type, had the least negative ROE. While all rates of return differed by model type, none were statistically significant.

Rates of return varied unpredictably with increasing plan size, following the same pattern as that for income by plan size found in Table 3. That is, the ROA and ROR for plans with 20,000–49,999 enrollees was the lowest; rates for the smallest and largest plans were similar (Figure 5). For example, the gross ROR for plans with 20,000–49,999 enrollees was significantly poorer (-0.051) than the largest plans (-0.011) and the smallest plans (-0.003). Plans with 20,000–49,999 members had significantly lower net returns on revenues than the largest plans, as well (-0.048 versus -0.014). The smallest plans had the greatest equity per member (Table 6) and better than average profit margins (Table 8), so this category had a much higher gross and net ROE (-0.217 and -0.193) than plans with 50,000–99,999 members (-1.456 and -1.369), which had half as much equity per member and one of the lowest profit margins. This difference was not statistically significant, however.

Rates of return also varied significantly by region, with the South Atlantic being significantly lower than the Mountain/Pacific states (Figure 5). This results from the low profit margins (-6%) for South Atlantic plans compared to the relatively higher profit margins for Mountain/Pacific plans (-1.7%) (Table 8). For example, gross ROAs for the South Atlantic and Mountain/Pacific regions were -0.267 and -0.035, respectively, while gross RORs were -0.070 and -0.007 respectively. The gross and net ROEs for the New England region were significantly higher than for all other regions, because they generated better than average profit margins per dollar of equity of all regions.

Liquidity Measures

Liquidity measures show the ability of HMOs to meet short-term financial obligations. These are presented in Table 5.

The *current ratio* measures the ability to pay current claims of short-term creditors from cash or highly liquid holdings such as marketable securities. In most cases, an HMO desires to have a number close to but greater than 1.00—that is, its liquid funds are just enough to cover its short-term obligations. The current ratio is a somewhat crude measure of liquidity since it does not consider the liquidity of the individual components of the current assets.

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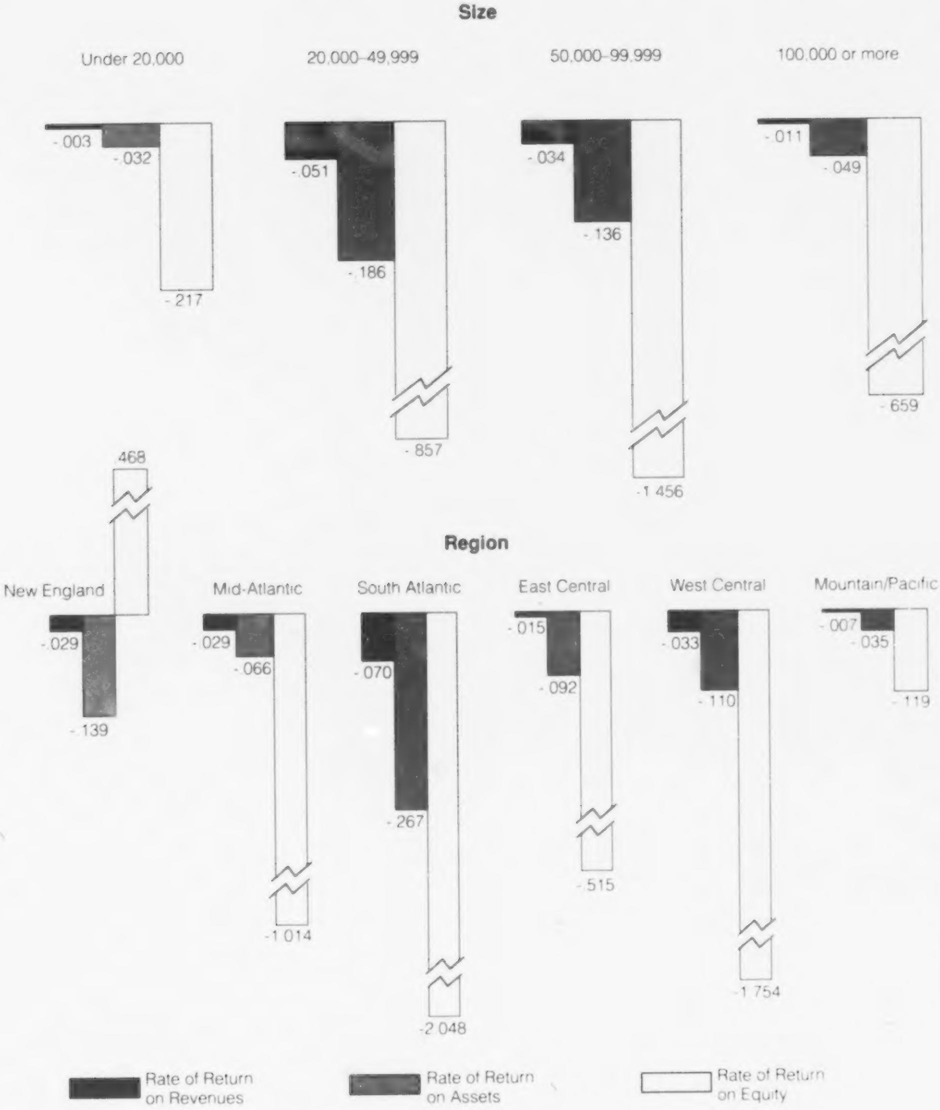
[17] The same procedure was followed in the 1989 edition of the *HMO Industry Profile*, which reported 1987 financial data.

Figure 5
Mean Rates of Return by Size and Region, Plans Over Three Years Old, 1988*



*Rates of return based on income before taxes and extraordinary items
SOURCE: GHAA's Annual HMO Industry Survey

In 1988, the mean and median current ratios were 0.94 and 0.97. Profitable established plans had a mean current ratio of 1.06, and unprofitable plans had a mean ratio of 0.84. Network models had the highest current ratio (1.06), group and IPA models each had a current ratio of 0.91, and staff models had 0.98. These differences were not statistically significant.

The current ratio for the smallest plans was considerably higher than for the larger plans (1.08 versus approximately 0.92). The reason appears to be the large amount of cash which is kept on hand, perhaps to pay for tradesmen who do not wish to extend credit to smaller (and traditionally riskier) plans. It may also relate to the way in which funding from parent corporations appears on the balance sheet. Recent statutory requirements for minimum net worth in HMOs does not seem to be the explanation, since those funds are reported in the "other asset" category and do not appear in this ratio.

Mean current ratios also showed wide variation by plan owner, ranging from a high of 1.03 for plans owned by commercial insurers and provider-sponsored plans, to a low of 0.79 for plans owned by national HMO chains. National HMO chains have relatively low current assets (two-thirds of the day's cash on hand as the average HMO) and relatively high long-term debt (Table 6), resulting in the low current ratio.

Days premiums receivable indicates the number of days in the average collection period. The mean number of days premiums were late was 19.1 (median 14.5). Since HMOs are, by definition, prepaid plans, the days premiums receivable should be zero. In practice, however, individuals who pay monthly or quarterly may be late, and employers may delay monthly payments while accretions and deletions are straightened out. If this measure is lengthening, the HMO may encounter cash flow problems in the future. Profitable and unprofitable plans had about the same number of days premiums receivable in 1988—18.2 and 19.8 days, respectively. Thus, this liquidity measure does not appear to play a large role in determining positive gross income.

There was little variability by plan characteristic in the days premiums receivable, and no differences were statistically significant. The categories with the fewest days were non-federally qualified plans (15 days versus 20 days for qualified plans) and plans in the East Central region (15 days versus 25 days for the Mid-Atlantic, which was the longest period).[18]

Days cash on hand measures the number of days an HMO could meet its average daily expenditures with cash on hand. It shows how long an HMO could continue to operate if all revenue sources suddenly stopped. The desirable number of days cash on hand for an HMO is a financial policy decision which varies widely across the industry, especially compared to the limited variability for days premiums receivable. This is illustrated by the difference between the mean and median days cash on hand (18.0 and 10.7 days).

Days cash on hand decreased with increasing size, from 27 days for the smallest plans to 15 days for the largest. Networks had the largest amount of any model type (22 days) compared to 19 for IPAs, 14 for groups, and 18 for staff models. Plans affiliated with Blue Cross/Blue Shield reported only 9 days cash on hand, about one-third the number of days for plans owned by commercial insurers (26 days). None of the differences by plan characteristic were statistically significant, however.

Unprofitable plans averaged fewer days cash on hand than days premiums receivable (13 days versus 23 days). This means they were relying upon prompt payment to finance their day-to-day operations. The profitable plans, in contrast, maintained a favorable spread of approximately five days.

Days claims and IBNR payable indicates the length of time it takes the HMO to pay its medical bills. (Nonmedical accounts payable, such as for computer support and reported accrued medical incentive pool, are not included in this measure). Low values of this ratio are better than high ones; if an HMO takes too long to pay bills, it may endanger its trade and bank credit. Ideally, an HMO's days payable will be just long enough to take advantage of bank float and earned interest on its funds without losing the opportunity of discounts for prompt payment (often 10–30 days).

Plans averaged 48.6 days (median of 47.4 days) to pay their bills. There were statistically significant differences by several plan characteristics. Group models (30.5) had significantly fewer days in claims payable than IPAs and staff models (56.5 and 46.5 days), perhaps because IPAs pay for a larger proportion of covered services by the visit, rather than prepaying physicians a capitation. Plans in operation 16 or more years had fewer days (38.7) than plans in both of the younger categories (about 50 days).

Capital Structure Measures

Capital structure measures, shown in Table 6 and Exhibit 2, assess the long-term solvency of a firm. Nearly all measures varied significantly by model type in 1988. This is expected because the denominators of most of the ratios, i.e. equity and assets per member, varied widely by model type.

The *equity financing ratio* shows the proportion of total assets which have been financed through equity rather than credit. The mean value was 0.120 and the median was 0.157. The ratio varied by model, with IPAs being significantly lower (0.079) than for group models (0.258) (Figure 6). This is expected

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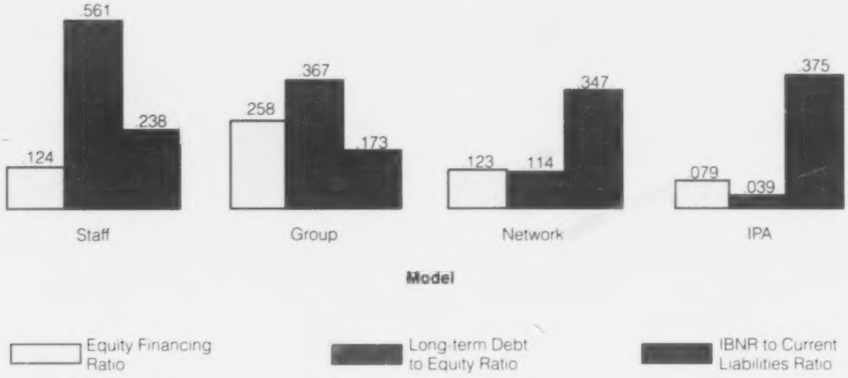
[18] The longest period on the table for established plans is 26 days for plans owned by "others". Since the sample size is only 8 plans, it is probably not relevant to most readers.

Figure 6
Mean Capital Structures by Plan Model, Plans Over Three Years Old, 1988



SOURCE: GHAA's Annual HMO Industry Survey

since IPAs had the lowest assets per member of any model type (Exhibit 2). The average equity financing ratio was positive in all regions except New England (−0.023), the region with the lowest average equity.

The ratio of *long-term debt to equity* is a general indication of the credit-worthiness and financial risk of the HMO. The average ratio for plans in 1988 was 0.20 (i.e., five times as much equity as long-term debt). The median was 0.007. The median is close to zero because 26% of established plans reported no long-term debt; all of these reported large current liabilities, however, some in the tens of millions of dollars.

This ratio shows wide variations by plan characteristic and implies that some models are better able to raise equity funding or to collateralize debt than others. Staff models had the highest ratio (0.561), which is reflected in their high interest payments of $0.60 versus the average of $0.29 (Table 12). Staff models also had slightly higher than average assets (Exhibit 2), which could be used as collateral for debt. Plans enrolling 20,000–49,999 members had the lowest ratio of any plan size (−.629). Profitable plans averaged 0.726 and unprofitable plans averaged −0.404.

As suggested by financial theories on the cost of capital, the long-term debt to equity ratio is lower for for-profit HMOs than for nonprofit plans (−0.053 versus 0.471). For-profit HMOs may prefer to finance funds through stock offerings, whereas nonprofit HMOs may prefer to finance funds by issuing tax exempt bonds. For-profit HMOs also had lower equity per member than nonprofit HMOs.

Cash flow to total debt indicates the ability to cover future debt repayments. The average ratio was −0.007 but the median was positive at 0.064. As expected, the patterns of ratios by plan characteristic were similar to the patterns for operating income (Table 3), since this is a large portion of the numerator. One problem in analyzing this ratio is that the NAIC "Orange Blank" does not separate depreciation from occupancy costs. This may distort the differences within plan characteristic and obscure actual differences or create new ones.

Cash flow coverage varied significantly by model type. IPAs had a ratio which was negative and significantly lower than the ratio for staff models (−0.084 versus 0.117) (Figure 6). This is expected since IPAs had lower profit margins than average (Table 8) but average interest payments (Table 12), while staff models had a higher profit margin than average and twice the interest payment of IPAs. Cash flow coverage improved linearly and significantly with plan age, from −0.090 for plans in operation 4–7 years to 0.083 for plans in operation 16 years or more. This is expected since profit margins increased significantly with age.

The *tangible asset financing ratio* shows the ability of a company to meet cash expenses with the tax shelter offered by depreciation (the tax shelter makes funds available for other uses rather than being paid to the government). This can be an important cash source for firms with substantial fixed assets, such as staff model HMOs. The average and median ratios were 0.895 and 0.855. The distribution by plan characteristic was similar to that for total assets per member (Exhibit 2); i.e., plan categories with the low assets per member, such as IPAs, federally qualified plans or plans in operation 8–15 years, had high tangible asset financing ratios. By comparing the ratios for two categories of plans with similar assets, one can infer the relative debt load. For example, New England and Mountain/Pacific plans had assets of approximately $26.40 PMPM, but their ratios were 1.027 and 0.875. This implies that New England plans carried much more debt.

This ratio varied significantly by several plan characteristics. IPAs had a significantly higher ratio than group models (0.940 versus 0.743), which resulted from a combination of smaller assets for IPAs and higher debt. Plans with 20,000–49,999 members had a significantly higher ratio than smaller plans (0.989 versus 0.786), which resulted from a combination of relatively low debt and the greatest assets per member for plans in the 20,000–49,999 size category.

Reserves as a portion of total assets was calculated because some states are imposing higher reserve requirements.[19] The statutory reserves generally are to be used to pay providers for services rendered enrollees whose bills have not been paid at the time an HMO becomes insolvent.

The mean and median reserves differed greatly (2.4% and 0.4%). Many HMOs reported no reserves in this line item (restricted assets). The percentage for the smallest plans (4.4%) was over four times that for the largest plans, a significant difference. Since the assets per member differ by only $2 between these two categories, smaller plans are clearly incurring a heavier load. These figures may reflect a sliding scale for reserves, with smaller plans assumed to be riskier and thus paying more, and/or larger plans being older and exempted from the reserve requirements. The data show that the percentage declines with age: younger plans had a significantly higher percentage (4.0%) than plans in operation 4–7 years (1.3%) and plans in operation 16 years or more (0.9%).

IBNR as a percentage of current liabilities amounted to 31% of current liabilities, and about the same percentage whether the plan was profitable (30%) or not (33%). This measure showed statistically significant differences by model type, which is expected since IPAs and networks capitate physicians to a smaller degree than group and staff models. With more claims filed per episode of illness, IPAs had a significantly higher percentage of current liabilities being IBNR (37%) than both group and staff models (17% and 24%) (Figure 6).

Equity per member per month shows the average equity the HMO has per enrollee. Along with total assets per member, this measure is frequently used to value an HMO for an acquisition. The mean equity was $4.06, but the median was approximately $1 less at $2.90. Staff and group models had higher equity

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[19] This is a different ratio than that used in the 1987 edition. Rather than looking at the liability side of the balance sheet, this ratio looks at the asset side. This ratio conforms more closely to the definitions for "reserves" in the NAIC Orange Blank.

Exhibit 2
Total Assets Per Member Per Month,
Plans Over Three Years Old, 1988

All Plans > 3	$28.42		
		Age	
Model		4–7	29.27
Staff	31.38	8–15	24.29
Group	30.66	16 +	35.98
Network	43.23		
IPA	22.49	**Tax Status**	
		Nonprofit	28.33
Region		For-profit	28.50
New England	26.36		
Mid-Atlantic	32.15	**Qualification Status**	
South Atlantic	24.24	Federally qualified	23.90
East Central	34.44	Non-qualified	42.15
West Central	21.80		
Mountain/Pacific	26.59	**Ownership**	
		Blue Cross/Blue Shield	30.92
Size		Other Insurer	58.65
0–19,999	25.03	National HMO Chain	24.81
20,000–49,999	39.76	Independent	25.75
50,000–99,999	21.25	Provider-sponsored	20.43
100,000 +	27.00	Other	27.57

Source: GHAA's Annual HMO Industry Survey

than average ($5.43 and $6.80) while networks and IPAs had lower equity than average ($2.38 and $3.20). The amount of equity did not show any patterns by plan size or age; in fact, the smallest plans had the largest equity ($6.67). Nonprofit plans had nearly twice as much equity as for-profit plans ($5.26 versus $2.90).

Exhibit 2 shows the total assets per member per month. This is another common measure of the size of an HMO.

Activity Ratios

Activity ratios measure the financial efficiency of the HMO. Three of these measures are shown in Table 7. The only measure showing significant differences by plan characteristic was the total asset turnover ratio.

Premium receivable turnover is the annualized portion of monthly premium income which is not yet collected (i.e., receivable). If this ratio is large, the HMO must raise working capital from non-premium sources such as copayments or investments. The mean turnover value was 0.6. This measure showed little variability by HMO characteristic. There were no significant differences by plan characteristic, which is expected since there were no differences in days premiums receivable (Table 5).

Current asset turnover shows the efficiency of the investment in current assets with respect to the generation of revenue. The mean and median rates were 6.3 and 5.5, respectively. The 1988 ratio for group models (7.4) was larger than for the other three models, but not statistically significant. Unprofitable HMOs turned over current assets more quickly than profitable HMOs (7.0 versus 5.6) because, although the unprofitable HMOs had lower revenues, they had even lower and sometimes negative current assets.

Total asset turnover indicates how efficiently the HMO uses its assets. The higher the number, the greater the efficiency. The mean was 4.0. Because revenues (the numerator) and total assets (the denominator) varied by model type, it is not surprising that there were statistically significant differences in this ratio by model type. Staff models, which had nearly average assets, had the highest operating revenue by model type which resulted in the lowest turnover rate. IPAs had low revenues and low assets, while networks had higher revenues and high assets; their ratios were nearly the same at 4.5 and 4.3. The total asset turnover declined significantly by plan age, from 4.6 for plans in operation 4–7 years to 3.3 for plans in operation 16 years or more. This was mostly the result of assets increasing with plan age.

Profitability Ratios

Table 8 presents the expense ratios and profit margins.

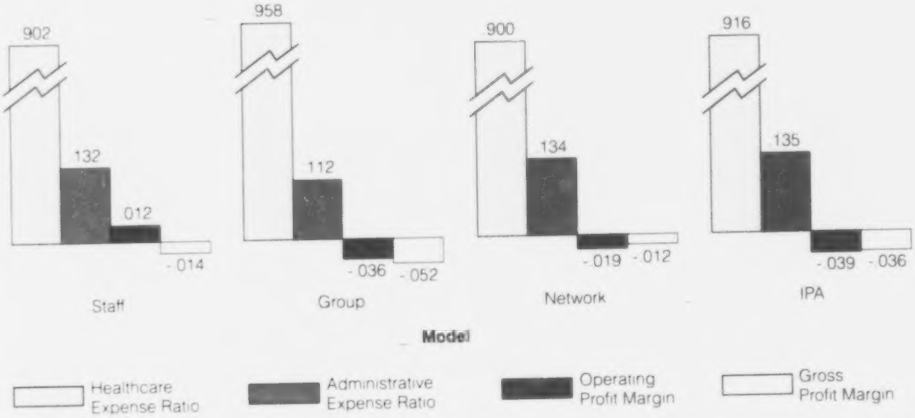
The *health care expense ratio* shows what proportion of total operating revenue is spent on health care. The mean and median in 1988 were 92% and 91%. Group model HMOs (96%) were significantly higher than all other models, which had health care expense ratios about 90% (Figure 7). The percentage did not change linearly with increasing age or size. The percentage also was about the same regardless of tax status: 93% for nonprofit HMOs, and 91% for for-profit HMOs. Blue Cross/Blue Shield affiliated plans had the highest percentage (96%), while independently-owned and provider-sponsored HMOs had the lowest percentages (89% and 90%).

Profitable HMOs had a lower health care expense ratio than unprofitable HMOs (88% versus 96%). This reflects the problems unprofitable HMOs have in obtaining enough operating revenue to cover costs for health care services. For example, unprofitable HMOs' revenues were about $2.50 less than profitable HMOs', and the average expenses for unprofitable HMOs were $6 PMPM more than those of profitable plans. This illustrates that a higher health care expense ratio does not necessarily indicate a more fiscally sound plan.

The *administrative expense ratio* calculates total administrative expenses per dollar of operating revenue. High values may imply that the HMO is not achieving economies of scale by enrolling large numbers of members. The mean and median for plans were 13% and 12%. Group models had a slightly lower percentage than the other model types (Figure 7).

This ratio declined significantly with plan size, from 14% in the smallest to 12% in the largest. The administrative expense ratio also declined significantly with increasing age in 1988, from 14% to 11%. Although the average size of plans in the South Atlantic and East Central regions were about the same (Exhibit 1), the administrative expense ratios in the South Atlantic were significantly higher than for plans in the East Central region (16% versus 12%). Plans in the South Atlantic paid about $5 PMPM more for administrative services than plans in the

Figure 7
Mean Expense Ratios and Profit Margins by Plan Model, Plans Over Three Years Old, 1988



SOURCE GHAA's Annual HMO Industry Survey

East Central ($13.46 versus $8.39) (Table 10).

The *profit margins* show the percentage of each revenue dollar which is ultimately realized as income. The mean and median gross profit margins were -3.2% and -0.4%—very close to breaking even. Staff models had a positive operating margin (1.2%) which was significantly better than IPAs (-3.9%). Networks had the least negative gross profit margin (-1.2%) and groups the most negative (-5.2%) (Figure 7). The HMOs which made a profit averaged a 2.0% gross margin. Unprofitable HMOs averaged -6.9% losses.

Plans with 20,000-49,999 members had the most negative operating margin (-5.0%), which differed significantly from plans with 100,000 or more members (-0.9%). Operating profit margin also differed significantly by plan age, with the youngest plans being significantly lower (-4.9%) than the older categories (-1.2% for plans 8-15, and breakeven for the oldest plans). This may represent both economies of scale and experience.

Plans in the South Atlantic had the most negative operating, gross, and net profit margins (about -6%), while plans in the Mountain/Pacific region were closest to breaking even. Federal qualification status did not seem to effect margins. Blue Cross/Blue Shield affiliated plans had the most negative margins (about -7%) while independently owned plans broke even.

V. HMO REVENUE SOURCES AND EXPENSES

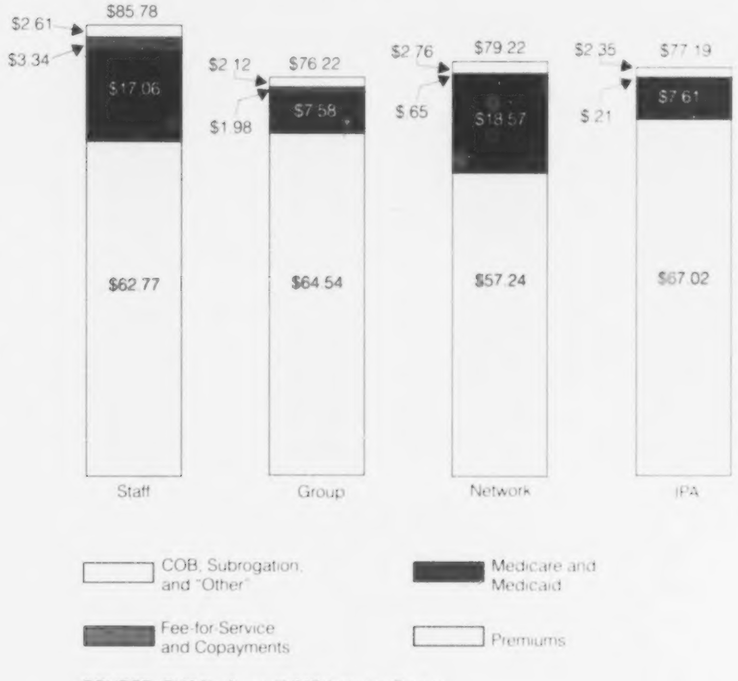
This chapter addresses sources of revenues and medical and administrative expenses in 1988. A special section reviews expenses for Medicare and Medicaid enrollees. All results refer only to established plans.

Revenues Per Member Per Month

Table 9 presents revenue data. The average total revenue was $78.77 PMPM, of which most (84%) came from premiums. The next largest contributor to revenue was combined Medicare and Medicaid payments (12%). The profitable plans' average total revenue was $80.25 while unprofitable plans' was $77.41.

Figure 8 shows the total revenue and contributions to revenue by model type. Average revenue PMPM by model differed by about $10, with staff models having the highest total revenues ($85.78) and group models the lowest ($76.22). Average total revenues for plans with 100,000 members or more were significantly higher than those for plans with fewer than 20,000 members ($83.63 versus $73.73). Plans in New England had significantly higher total revenues ($91.04) than plans in the Mid-Atlantic and East Central regions ($73.47 and $75.30). Most of this regional difference is explained by the significantly higher premium revenue for New England plans compared to the other areas. The higher revenue was required to meet the significantly higher regional ex-

Figure 8
**Mean HMO Revenue by Model,
Plans Over Three Years Old, 1988**



SOURCE: GHAA's Annual HMO Industry Survey

penses shown in Table 10. Consequently, average gross income for New England plans was –$2.76, approximately the industry average.

Analysis of premium revenues by plan characteristic revealed several statistically significant differences. Premium revenue for network models was about $10 less than for IPAs ($57.24 versus $67.02); as noted later this could reflect the higher dependence of networks relative to IPAs on Medicare and Medicaid revenues. The premium revenue for the smallest plans ($55.11) was about $12 and significantly less than the premium revenue for plans with 100,000 or more enrollees ($67.01) and plans with 20,000–49,999 enrollees ($69.39).

Interestingly, profitable plans collected *lower* average premiums than unprofitable plans ($60.84 versus $67.80). However, profitable plans reported 2.5 times as much Medicare and Medicaid payments as unprofitable plans and spent about $6 less per member than unprofitable plans. This combination of higher revenue from non-premium sources and lower expenses offset the difference in premium revenues.

Revenue Sources by Type

Premiums contributed 84% of the average plan's 1988 revenues. Combined Medicare and Medicaid revenues contributed 12%. All other sources of revenue accounted for less than 5% of total revenues.

Analysis by plan characteristic identified several significant differences by model type. For example, IPA models rely most heavily on premiums (88%), while staff models count relatively more heavily on fee-for-service and copayments (4%) and commensurately less on premiums (74%). The older the plan, the greater the contribution to revenue from fee-for-service payments and copayments.

Average Medicare and Medicaid revenue for group models ($7.61) was significantly lower than for staff and network models ($17.06 and $18.57). In the latter two model types, Medicare and Medicaid revenue accounted for about 18% of total revenues, compared to about 9% for the other two model types.

Coordination of benefits and subrogation contributed 0.9% to revenues. Plans owned by commercial insurers had the largest contribution from this source (2.1%), perhaps because of the experience gained through handling indemnity claims.

Overall Expenses Per Member Per Month

Table 10 shows the average per plan 1988 expense of $82.60 PMPM was distributed as follows: hospitalization, 33.9%; medical, 53.7%; and administrative, 12.3%. This distribution for 194 respondents was about the same regardless of whether or not the HMO made a profit. However, profitable HMOs had lower expenses in each category than unprofitable HMOs.

Analysis by plan characteristic showed no significant differences in overall expenses. The New England region had the highest expenses ($94.20) and the Mid-Atlantic had the lowest ($77.47). New England had the highest expenses of all regions in the hospital and medical categories ($31.29 and $50.37), which may be symptomatic of a relatively high cost of medical care in this part of the country. The region with the highest administrative cost was the South Atlantic ($13.46). This region also had the highest proportion of costs spent on administration (15%), perhaps because most plans in this area are young IPAs.

Total expenses increased linearly with age, from $80.36 (age 4–7) to $87.77 for plans 16 and over. Hospital expenses and administrative expenses showed no patterns by age, but medical costs increased. This is not surprising since older plans were more likely to be staff model HMOs, and staff models have larger medical costs.

Expenses showed no trends with increasing size in 1988. Plans with 20,000–49,999 enrollees spent significantly more than plans with fewer than 20,000 enrollees ($88.32 versus $75.63), and about the same amount in all categories as plans with 100,000 or more enrollees. Medical expenses for the largest plans were significantly larger than for plans with fewer than 20,000 enrollees ($47.59 versus $39.40). Administrative expenses for plans with 20,000–49,999 enrollees were significantly larger than for plans with 50,000–99,999 enrollees ($12.37 versus $9.13).

Health Care Expenses

Table 11 itemizes health care expenses by type. The data in this table may overstate or understate particular expenses since some respondents did not break down expenditures to the same degree as others.

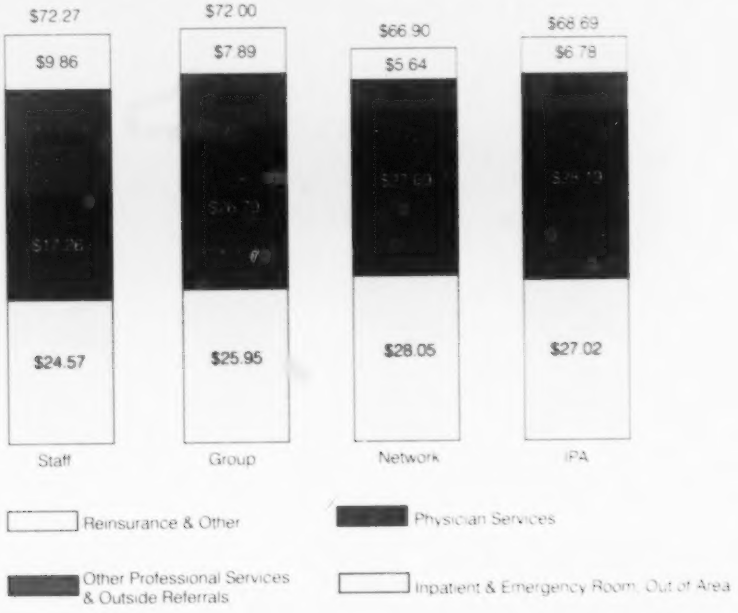
As can be seen in Figure 9, there was little difference in reported facility expenses (i.e., inpatient, out-of-area care, and emergency care) by model type or any other plan characteristic for the 184 plans used in this analysis. However, there was considerable variation in professional services by model type. This is expected since the contractual arrangement to provide medical care is the defining characteristic for a plan's model type.

For example, staff models and IPAs spent about the same amount of money PMPM ($35.94 versus $34.10) on medical services (i.e., physician, other professionals, and outside referrals). Yet, staff models reported that only 25% ($17.55) of health care expenses were for physicians, compared to 41% ($28.79) in IPAs. On the other hand, staff models reported 12% ($9.06) for "other professional services", compared to 3% ($2.83) for IPAs. Staff models have more non-physicians on staff, such as nurses, physician assistants, lab technicians, pharmacists, opticians, etc., than other model types. IPAs by definition contract primarily with physicians. Although these physicians may use allied health professionals, these expenses show up in the HMO's books as physician services.

Staff models also reported spending the highest proportion (13%) and amount ($9.33) on outside referrals of any model type. In comparison, IPAs reported 3.4% ($2.48) of health care expenditures in this category. This is attributable to differences in approaches to contracting for subspecialists. Some staff models may not have an adequate patient base to warrant a salary for a subspecialist. Consequently, when a patient needs a subspecialist, he may be referred outside the staff. Subspecialists may participate in IPAs, however, because no minimum number of referrals is required and the physician may be interested in increasing the number of patients and reducing billing expenses. An IPA would consider the visit to the subspecialist as a visit inside the plan.

Average health care expenses for the 86 profitable plans were $2.85 less than the expenses for the 97 unprofitable plans. The major source of the difference was for outside referrals and emergency room plus out-of-area expenses—8.9% for profitable plans and 10.6% for unprofitable plans. Unprofitable plans also had the largest reported "other health care expenses" amount, which may be a reflection of an inability to track expenses by detailed line item. If this is the case, it could be difficult for the HMO's management to identify and monitor problem expenditure areas.

Figure 9
Mean HMO Healthcare Expenses by Model, Plans Over Three Years Old, 1988



SOURCE GHAA's Annual HMO Industry Survey

Administrative Expenses

Table 12 contains data on administrative expenses by type. The average cost was $8.78 PMPM for the 161 established plans which itemized administrative expenses. About 39% was for compensation and 15% for marketing.

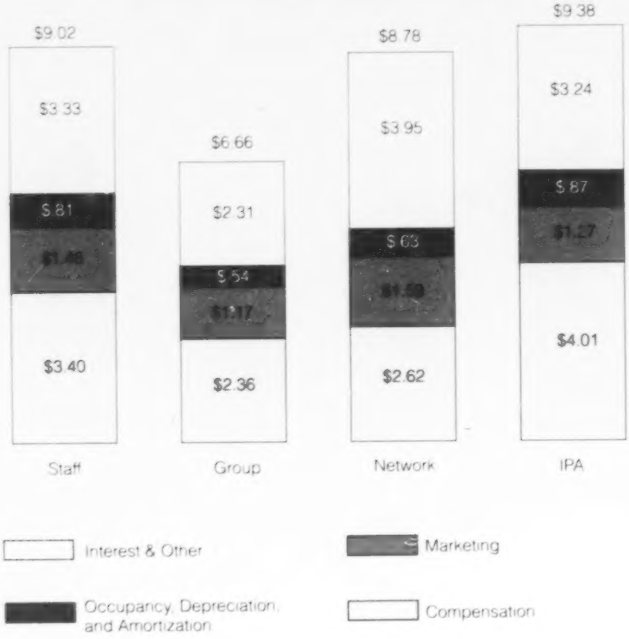
Figure 10 shows itemized expenses by model type. Staff model HMOs spent a noticeably higher proportion on interest (6.4%) than other model types (about 2–3%). IPAs reported the greatest proportion (43%) and amount ($4.01) for compensation, perhaps because of the need to hire staff to process claims from IPA physicians.

Medicare Revenues and Expenses

A special section of the Survey requested the plans to supply expense data for their Medicare and Medicaid enrollees. Unfortunately, 96 of the respondents which enrolled Medicare beneficiaries and 56 which enrolled Medicaid recipients said they were not able to aggregate expenses solely for their Medicare or Medicaid members. The analysis also excluded about 10 plans because they were not able to provide data in each of the three categories, or because they did not enroll 1,000 beneficiaries or recipients. Even though the remaining sample sizes are small (33 for Medicare and 17 for Medicaid), the data are useful for showing the general magnitude of expenditures. Plan age and model type were the only plan characteristics used in this analysis.

Table 13 and Figure 11 show the average dollars spent per Medicare enrollee for physician care, facility (inpatient) expenses, and plan administration. Of the average $187.77 spent per month, physician care accounted for nearly half (49%) of the costs, facility expenses for 42%, and administration for 9%. The combined data for staff and group model HMOs showed that they spent a smaller proportion (38%) on facility expenses than the combined data for networks and IPAs (44%). In terms of dollars, staff/group models spent about two-thirds as much on facilities as networks/IPAs ($62.57 versus $99.36). Although the distribution of physician expenses was about the same regardless of model type, staff/group models spent about three-fourths of the amount spent by networks/IPAs ($75.22 versus $97.21).

Figure 10
Mean HMO Administrative Expenses by Model, Plans Over Three Years Old, 1988

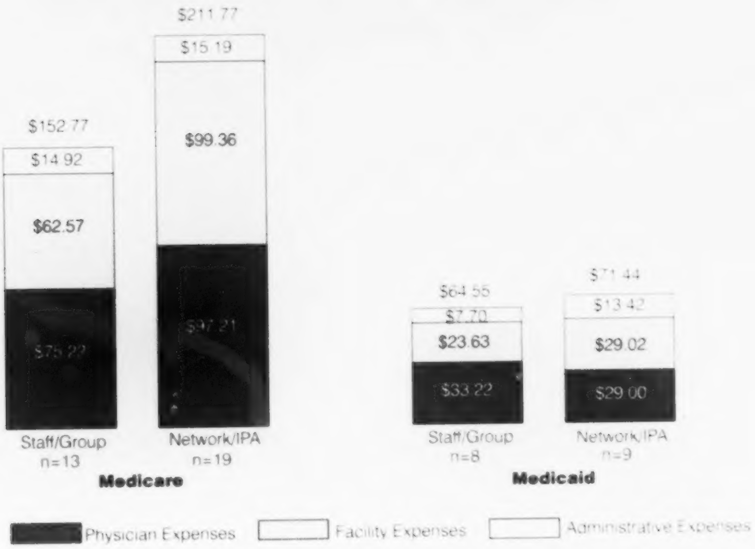


SOURCE: GHAA's Annual HMO Industry Survey

Medicaid Revenues and Expenses

Table 14 shows the average Medicaid expenses for the 21 HMOs which were able to provide complete data. The 17 established plans with more than 1,000 Medicaid members averaged $68.00 in expenses per Medicaid enrollee per month. The proportion spent on administration (19%) is twice as high as the proportion spent for Medicare beneficiaries (9%), although the dollar amount is less ($15 for Medicare administration versus $11 for Medicaid). About the same amount ($26.33) was spent for facilities by these 17 plans as for all members ($27.27); however, physician expenses for Medicaid enrollees were about three-quarters of the amount they reported for all members ($31.11 versus $45.07). Figure 11 illustrates the combined data for staff and group models versus networks and IPAs. Staff/groups had lower expenses than networks/IPAs. The distribution of expenses differed by model type, with the staff/groups spending relatively more on physician and administrative costs and less on facility costs.

Figure 11
Mean Medicare and Medicaid Expenses by Plan Model, Plans Over Three Years Old, 1988



SOURCE: GHAA's Annual HMO Industry Survey

VI. SOLVENCY SURVEILLANCE INDICATORS AND TRENDS

Two types of analyses are commonly used to compare changes over time: cross-sectional analysis, which compares changes in descriptive statistics for independent random samples at different times, and longitudinal analysis, which compares changes over time for the same sample. A simple comparison of the 1987 and 1988 tables shows differences by plan characteristic between this edition of the *HMO Industry Profile* and the previous edition. For example, statistically significant differences by plan characteristic follow different patterns, and some ratios which increased linearly with plan age and/or size in one year did not change linearly in the other. While some differences are true changes, others are attributable to the change in response patterns, particularly the improved response rate for IPAs in 1988 compared to 1987. Consequently, a cross-sectional analysis using the Annual HMO Industry Survey could be misleading in comparing changes in financial performance between 1987 and 1988.

To address this issue, this chapter supplements cross-sectional analysis with longitudinal analysis of changes in financial performance. That is, it compares changes in financial measures for 129 plans which reported financial data in both 1987 and 1988, were over three years old in 1987, and enrolled over 1,000 members in both years. The distribution of this subset of plans by plan characteristic differed by some key plan characteristics from that of the industry. For example, 20% of the plans were staff models, 23% groups, 15% networks, and 42% IPAs. Smaller plans were under-represented while plans with more than 50,000 members were over-represented.

The distribution of the data for each financial measure was examined to determine the mean and three standard deviations from the mean. Data points more than three standard deviations from the mean were excluded from the next step to enhance generalizability. The next step, paired t-tests, compared the mean change of the selected financial measures.

The financial measures used for this trend analysis are the draft solvency surveillance indicators (SSIs). Exhibit 3 presents the mean, median, 25th percentile and 75th percentile values in 1988 for many of the draft solvency surveillance indicators which are suggested for regulators to flag HMOs for intensive review. The draft indicators are comprised of ten elements: plan size, profit margin, net worth, current ratio, health care expense ratio, administrative expense ratio, debt ratio, premium receivable turnover, cash flow to total debt, and claims payable and IBNR ratios.

While nearly all solvency surveillance indicators showed improvement from 1987 to 1988, few of them were statistically significant. The largest gains were made in total assets per member and in net profit margin. HMOs also were able to reduce their administrative expense ratio slightly.

1. *Net profit margin.* The cross-sectional and longitudinal comparisons of mean and median net prof-

Exhibit 3
Draft Solvency Surveillance Indicators,
Plans Over Three Years Old, 1988

Solvency Surveillance Indicator Number		Mean	Median	25th Percentile	75th Percentile
1	Net profit margin	-.031	-.002	-.063	.015
3	Current ratio	.94	.97	.72	1.16
4	Healthcare expense ratio	.919	.912	.873	.960
5	Administrative expense ratio	.130	.124	.095	.160
6	Tangible asset financing ratio	.898	.854	.71	.98
8	Premium receivable turnover	.6	.5	.3	.9
9	Cash flow to total debt	-.008	.064	-.06	.18

Source: GHAA's Annual HMO Industry Survey

it margins agree that the industry improved its 1988 performance over 1987. The median net profit margin improved from –1.3% to –0.2%. Plans reporting both years showed a significant increase in average profit margins, from –2.7% to –1.7% ($p<0.032$).

2. *Tangible net worth*. Plans reporting both years showed a very slight, nonsignificant increase in this measure, from an average of $6,722,034 to $7,211,186.

3. *Current ratio*. This measure was virtually unchanged. The cross-sectional medians were 0.98 in 1987 and 0.97 in 1988 (means of 0.96 and 0.94, respectively). The mean for plans reporting both years increased slightly from 0.93 to 0.95.

4. *Health care expense ratio*. Cross-sectional analysis shows a very slight decline in this ratio, but longitudinal analysis shows no change. The median ratios in 1987 and 1988 were 92% and 91% (mean ratios 93% and 92%). Plans reporting both years had health care expense ratios of 92%.

5. *Administrative expense ratio*. This measure declined significantly ($p<0.015$) for plans reporting both years, from 12.6% to 12.0%. The cross-sectional analysis shows conflicting patterns: the median increased from 11.9% in 1987 to 12.4% in 1988, while the mean decreased from 13.6% to 13.0%.

6. *Tangible asset financing ratio*. Both analyses show that this measure declined slightly, but not significantly. The median decreased from 0.892 to 0.854, and the mean from 0.981 to 0.898.

7. *Enrollment level*. The average enrollment level increased significantly from 120,103 enrollees to 132,716 enrollees for plans reporting in both years. This amounted to a 10.5% increase.

8. *Premium receivable turnover*. While cross-sectional analysis showed no change from 1987 to 1988, longitudinal analysis showed a small and nearly significant ($p<0.07$) increase from 0.574 to 0.628.

9. *Cash flow to total debt*. Longitudinal and cross-sectional analyses of the mean showed no change for this ratio. However, the median value in the cross-sectional analysis doubled, from 0.032 to 0.064.

10. *Days claims and IBNR payable*. Average days payable increased very slightly for plans reporting both years, from 42.9 days to 44.4 days. This increase was not significant.

A longitudinal comparison of several additional measures showed a small but nonsignificant improvement in mean operating margins (from –1.8% in 1987 to –1.1% in 1988), and in dollars of equity per member per month (from $3.19 to $3.53).

In contrast, the cross-sectional comparison of the long-term debt-to-equity ratio showed the most dramatic change of any financial measure between 1987 and 1988, from an average of 2.0 to 0.2. For this reason, the total debt-to-equity ratio was computed. In 1988, this ratio was 4.7 and showed wide variation by plan characteristic. For example, ratios by model type were 4.5 (staff), 2.7 (group), 4.8 (network), and 5.4 (IPA). The region with the highest ratio was the West Central (9.4) and the lowest were plans in the Mid-Atlantic (1.0). Plans affiliated with Blue Cross/Blue Shield had a ratio three times greater than independently owned plans (9.5 versus 3.2).

Longitudinal analysis showed no significant change in the average total debt-to-equity ratio (from 6.7 in 1987 to 5.13 in 1988). Thus, it is concluded that many HMOs substantially increased their current liabilities in 1988. Because the current ratio did not change between 1987 and 1988, these same HMOs were able to increase their current assets in 1988. This finding is substantiated by the significant gain in total assets per member, from an average of $22.22 PMPM to $23.71 PMPM ($p<0.02$).

DETAILED TABLES

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GUIDE TO USING THE DETAILED TABLES

All detailed tables contain statistics for all responding plans with more than 1,000 enrollees, as well as separate statistics for those plans with more than three years operational experience and whether or not they made a profit in 1988. The tables present means for all respondents, followed by data for all plans over three years of age ("established plans"), established plans with positive gross income, and established plans with negative gross income.

Most tables provide separate statistics for plans along with the following characteristics: model, region, size, plan age, tax status, federal qualification status, and ownership.

Definitions used in arraying plans by these characteristics are:

MODEL TYPE (Defined in the Questionnaire)

Plans were asked to identify which model best reflects the *predominant* components of the plan.

Staff:	An organized prepaid health care system that delivers health services through a salaried physician group that is employed by the HMO Unit.
Group:	An organized prepaid health care system that contracts with one independent group practice to provide health services.
Network:	An organized prepaid health care system that contracts with two or more independent group practices to provide health services.
IPA:	An organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations of physicians in independent practice, and/or with one or more multispecialty group practices (but the plan is predominately organized around solo/single specialty practices) to provide health services.

REGION

Coded by GHAA, based on the state the plan indicated had the largest share of its enrollment.

New England:	Includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
Mid-Atlantic:	Includes New Jersey, New York, and Pennsylvania.
South Atlantic:	Includes Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.
East Central:	Includes Alabama, Illinois, Indiana, Kentucky, Michigan, Mississippi, Ohio, Tennessee, and Wisconsin.
West Central:	Includes Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas.
Mountain/ Pacific:	Includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, and Guam.

SIZE

Based on collapsed codes from plan-reported data on total enrollment as of December 31, 1988.

TAX STATUS

Tax status was requested as of March 31, 1989.

FEDERAL QUALIFICATION STATUS

Based on plan-reported data. Plans indicating that they were federally qualified in some service areas were included in the federally qualified group. Federal qualification status was requested as of March 31, 1989.

OWNERSHIP

Based on recoding from plan-indicated data. Independent plans refer to plans independently owned by an HMO company. Provider-sponsored plans include plans owned by physicians, hospitals, or combinations, either as independent plans or part of chains. Plans owned by "other insurers" also include those of mixed ownership where the insurer appeared the majority owner. Plans owned by National HMO Chains include both those independently owned and those owned by a mix of parties where the majority owner was not clear. Plans owned by "others" tended to be cooperatives, county-sponsored, church or university owned.

FINANCIAL DEFINITIONS

The GHAA Annual HMO Industry Survey instrument includes the definitions used on the National Association of Insurance Commissioners (NAIC) "Orange Blank"—a standard financial reporting form for HMOs required by many states.

In most cases, the components of the tables are self-evident. Below are definitions for variables and ratios which are less straightforward or which were created for purposes of this volume. Whenever possible, definitions coincide with the draft solvency surveillance indicators prepared by the National Association of HMO Regulators (NAHMOR) and current industry practices.

Table 4: Rates of Return

Gross return on equity
= (income before taxes and extraordinary items) ÷ total net worth
Net return on equity
= (income after taxes and extraordinary items) ÷ total net worth
Gross return on assets
= (income before taxes and extraordinary items) ÷ total assets
Net return on assets
= (income after taxes and extraordinary items) ÷ total assets
Gross return on revenue
= (income before taxes and extraordinary items) ÷ total revenue
Net return on revenue
= (income after taxes and extraordinary items) ÷ total revenue

Table 5: Liquidity Measures

Current ratio
= total current assets ÷ total current liabilities
Days premiums receivable
= (365 × premiums receivable) ÷ premiums
Days cash on hand
= (365 × cash) ÷ (total medical & hospital expenses)
Days claims and IBNR payable
= 365 × (reported claims payable + not reported accrued inpatient claims payable + not reported physician claims + not reported accrued referral claims + reported accrued other medical) ÷ (total medical & hospital expenses)

Note: does not include reported accrued medical incentive pool or accounts payable.

Table 6: Capital Structure

Equity financing ratio
= total after tax worth ÷ total assets
Debt to equity ratio
= total long-term liabilities ÷ total net worth
Cash flow to total debt ratio
= (gross income + medical occupancy, depreciation, and amortization + administrative occupancy, depreciation, and amortization) ÷ (total current liabilities + total long-term liabilities)

Note: This ratio is not the standard financial ratio because the survey data and Orange Blanks do not separate depreciation from occupancy and depreciation costs. This probably distorts the differences among model types since, as shown in Table 12, IPAs and networks have lower occupancy costs than group and staff models.

Tangible asset financing ratio
= (total liabilities) ÷ (total assets – net intangible assets and goodwill)
IBNR ÷ current liabilities
= (not reported accrued inpatient claims payable + not reported physician claims + not reported accrued referral claims) ÷ current liabilities
Reserves ÷ total assets
= restricted assets ÷ total assets

Table 7: Activity Ratios

Premium receivable turnover
= (12 × premiums receivable) ÷ premiums
Current asset turnover
= operating revenue ÷ total current assets
Note: Operating revenue = total revenue − other revenue − interest revenue
Total asset turnover
= operating revenue ÷ total assets

Table 8: Profitability Ratios

Health care expense ratio
= total medical and hospital expenses ÷ operating revenue
Administrative expense ratio
= total administration expenses ÷ operating revenue
Gross profit margin
= income before taxes and extraordinary items ÷ total revenue
After tax profit margin
= income after taxes and extraordinary items ÷ total revenue
Operating margin
= (operating revenue − operating expenses) ÷ total revenue

Note: This is not the standard ratio. Ordinarily, operating expenses = total expenses − depreciation. Since the survey data and Orange Blanks do not separate depreciation from occupancy and depreciation costs, the numbers are smaller than they should be because occupancy, depreciation and amortization were all deducted from total expenses.

Table 9: Revenues

Other revenue
= reinsurance + interest revenue + other revenue

Table 10: Summary Expenses

Medical expenses
= physician services + other professional services + outside referrals + occupancy, depreciation and amortization + reinsurance + other medical + incentive pool adjustment
Hospital expenses
= inpatient + emergency room, out-of-area, other
Administrative expenses
= total administration

Table 11: Expenses

Physician expenses
= physician services + incentive pool adjustment

Table 1
Selected Characteristics of Responding HMOs Used in the Financial Analysis with More Than 1,000 Enrollees, by Plan Age, 1988[1]

Selected Characteristics	All Plans			Plans >3 Years			Plans ≤3 Years		
	# of Plans	% of Plans	% of Enrollees	# of Plans	% of Plans	% of Enrollees	# of Plans	% of Plans	% of Enrollees
All Plans	284	100.0	100.0	213	100.0	100.0	71	100.0	100.0
MODEL									
Staff	39	13.7	17.6	36	16.9	18.8	3	4.2	1.1
Group	44	15.5	37.6	37	17.4	39.7	7	9.9	8.0
Network	36	12.7	9.1	28	13.1	8.6	8	11.3	16.9
IPA	165	58.1	35.7	112	52.6	32.9	53	74.6	74.0
REGION									
New England	21	7.4	8.3	16	7.5	8.6	5	7.0	4.0
Mid-Atlantic	38	13.4	13.3	31	14.6	13.7	7	9.9	7.8
South Atlantic	46	16.2	10.4	33	15.5	9.3	13	18.3	25.4
East Central	81	28.5	19.5	58	27.2	18.8	23	32.4	28.1
West Central	42	14.8	8.8	29	13.6	8.2	13	18.3	17.5
Mountain/Pacific	56	19.7	39.7	46	21.6	41.4	10	14.1	17.2
SIZE									
0–19,999	87	30.6	4.1	38	17.8	2.0	49	69.0	33.0
20,000–49,999	74	26.1	10.0	57	26.8	8.5	17	23.9	30.6
50,000–99,999	66	23.2	21.0	63	29.6	21.8	3	4.2	10.6
100,000+	57	20.1	64.9	55	25.8	67.7	2	2.8	25.8
AGE									
1–3	71	25.0	6.8	—	—	—	71	100.0	100.0
4–7	94	33.1	19.0	94	44.1	20.4	—	—	—
8–15	82	28.9	32.6	82	38.5	35.0	—	—	—
16+	37	13.0	41.6	37	17.4	44.7	—	—	—
TAX STATUS									
Nonprofit	116	40.8	60.3	102	47.9	63.3	14	19.7	19.3
For-profit	168	59.2	39.7	111	52.1	36.7	57	80.3	80.7
QUALIFICATION STATUS									
Federally qualified	176	62.0	81.2	151	70.9	83.5	25	35.2	50.0
Non-qualified	108	38.0	18.8	62	29.1	16.5	46	64.8	50.0
OWNERSHIP									
Blue Cross/Blue Shield	51	18.0	13.3	39	18.3	12.7	12	16.9	21.5
Other Insurer	42	14.8	8.4	24	11.3	7.5	18	25.4	20.3
National HMO Chain	35	12.3	30.3	31	14.6	32.3	4	5.6	3.3
Independent	79	27.8	32.3	69	32.4	33.6	10	14.1	13.9
Provider-sponsored	69	24.3	13.4	43	20.2	11.4	26	36.6	40.8
Other	8	2.8	2.2	7	3.3	2.4	1	1.4	.2

Table 1 (continued)
Selected Characteristics of Responding HMOs Used in the Financial Analysis with More Than 1000 Enrollees, by Plan Age, 1988[1]

	Profitable Plans >3 Years			Unprofitable Plans >3 Years		
	Number of Plans	Percentage of Plans	Percentage of Enrollees	Number of Plans	Percentage of Plans	Percentage of Enrollees
Profitable Plans >3 Years	98	100.0	100.0	114	100.0	100.0
MODEL						
Staff	19	19.4	17.9	16	14.0	20.0
Group	15	15.3	47.6	22	19.3	27.3
Network	16	16.3	9.8	12	10.5	6.6
IPA	48	49.0	24.6	64	56.1	46.1
REGION						
New England	9	9.2	9.9	6	5.3	6.5
Mid-Atlantic	14	14.3	12.9	17	14.9	15.0
South Atlantic	10	10.2	4.8	23	20.2	16.4
East Central	32	32.7	17.1	26	22.8	21.6
West Central	13	13.3	7.7	16	14.0	8.9
Mountain/Pacific	20	20.4	47.6	26	22.8	31.6
SIZE						
0–19,999	20	20.4	1.5	17	14.9	2.5
20,000–49,999	20	20.4	5.1	37	32.5	13.9
50,000–99,999	28	28.6	16.0	35	30.7	30.9
100,000+	30	30.6	77.3	25	21.9	52.7
AGE						
4–7	40	40.8	13.4	54	47.4	31.4
8–15	41	41.8	33.2	41	36.0	37.9
16+	17	17.3	53.5	19	16.7	30.7
TAX STATUS						
Nonprofit	49	50.0	70.7	52	45.6	51.5
For-profit	49	50.0	29.3	62	54.4	48.5
QUALIFICATION STATUS						
Federally qualified	71	72.4	83.0	80	70.2	84.2
Non-qualified	27	27.6	17.0	34	29.8	15.8
OWNERSHIP						
Blue Cross/Blue Shield	9	9.2	5.2	30	26.3	24.7
Other Insurer	5	5.1	2.4	19	16.7	15.6
National HMO Chain	12	12.2	37.8	19	16.7	23.7
Independent	43	43.9	39.2	26	22.8	24.9
Provider-sponsored	26	26.5	12.3	17	14.9	10.1
Other	3	3.1	3.2	3	2.6	1.1

Note:
1 Model, region, tax status, qualification status and ownership characteristics of responding plans are as of March 31, 1989. Plan size and age are as of December 31, 1988.
Source: GHAA's Annual HMO Industry Survey

Table 2
Percentage of Profitable and Unprofitable Plans by Selected Plan Characteristics, 1988[1]

	Operating Profit (n = 260)		Gross Profit (n = 283)		Net Profit (n = 284)	
	Profit	Loss	Profit	Loss	Profit	Loss
All Plans	38.5%	61.5%	41.7%	58.3%	41.5%	58.5%
MODEL						
Staff	64.9	35.1	55.3	44.7	53.8	46.2
Group	40.0	60.0	43.2	56.8	45.5	54.5
Network	39.4	63.6	44.4	55.6	44.4	55.6
IPA	31.3	68.7	37.6	62.4	37.0	63.0
REGION						
New England	31.6	68.4	50.0	50.0	47.6	52.4
Mid-Atlantic	40.0	60.0	36.8	63.2	39.5	60.5
South Atlantic	28.9	71.1	32.6	67.4	32.6	67.4
East Central	51.4	48.6	53.1	46.9	53.1	46.9
West Central	20.5	79.5	31.0	69.0	31.0	69.0
Mountain/Pacific	44.0	56.0	41.1	58.9	39.3	60.7
SIZE						
0–19,999	32.1	67.9	39.5	60.5	39.1	60.9
20,000–49,999	27.7	72.3	32.4	67.6	32.4	67.6
50,000–99,999	42.6	57.4	43.9	56.1	45.5	54.5
100,000 +	56.6	43.4	54.4	45.6	52.6	47.4
AGE						
1–3	22.7	77.3	28.2	71.8	26.8	73.2
4–7	32.2	67.8	42.6	57.4	42.6	57.4
8–15	52.0	48.0	50.0	50.0	51.2	48.8
16 +	56.3	43.7	47.2	52.8	45.9	54.1
TAX STATUS						
Nonprofit	42.7	57.3	48.7	51.3	49.1	50.9
For-profit	35.3	64.7	36.9	63.1	36.3	63.7
QUALIFICATION STATUS						
Federally qualified	33.0	67.0	40.2	59.8	39.8	60.2
Non-qualified	41.6	58.4	42.6	57.4	42.6	57.4
OWNERSHIP						
Blue Cross/Blue Shield	29.8	70.2	25.5	74.5	23.5	76.5
Other Insurer	8.6	91.4	11.9	88.1	11.9	88.1
National HMO Chain	35.3	64.7	37.1	62.9	37.1	62.9
Independent	53.9	46.1	58.2	41.8	58.2	41.8
Provider-sponsored	44.3	55.7	55.1	44.9	55.1	44.9
Other	42.9	57.1	42.9	57.1	50.0	50.0

Table 2 (continued)
Percentage of Profitable and Unprofitable Plans by Selected Plan Characteristics, 1988[1]

	Operating Profit (n = 194)		Gross Profit (n = 212)		Net Profit (n = 154)	
	Profit	Loss	Profit	Loss	Profit	Loss
All Plans > 3 Years	43.8%	56.2%	46.2%	53.8%	46.5%	53.5%
MODEL						
Staff	61.8	38.2	54.3	45.7	52.8	47.2
Group	42.9	57.1	40.5	59.5	43.2	56.8
Network	50.0	50.0	57.1	42.9	57.1	42.9
IPA	36.4	63.6	42.9	57.1	42.9	57.1
REGION						
New England	40.0	60.0	60.0	40.0	56.3	43.8
Mid-Atlantic	50.0	50.0	45.2	54.8	48.4	51.6
South Atlantic	28.1	71.9	30.3	69.7	30.3	69.7
East Central	54.9	45.1	55.2	44.8	55.2	44.8
West Central	29.6	70.4	44.8	55.2	44.8	55.2
Mountain/Pacific	48.8	51.2	43.5	56.5	43.5	56.5
SIZE						
0-19,999	40.6	59.4	54.1	45.9	55.3	44.7
20,000-49,999	33.3	66.7	35.1	64.9	35.1	64.9
50,000-99,999	44.1	55.9	44.4	55.6	46.0	54.0
100,000 +	55.8	44.2	54.5	45.5	52.7	47.3
AGE						
4-7	32.2	67.8	42.6	57.4	42.6	57.4
8-15	52.0	48.0	50.0	50.0	51.2	48.8
16 +	56.3	43.7	47.2	52.8	45.9	54.1
TAX STATUS						
Nonprofit	41.2	58.8	48.5	51.5	49.0	51.0
For-profit	46.4	53.6	44.1	55.9	44.1	55.9
QUALIFICATION STATUS						
Federally qualified	35.3	64.7	44.3	55.7	45.2	54.8
Non-qualified	46.9	53.1	47.0	53.0	47.0	53.0
OWNERSHIP						
Blue Cross/Blue Shield	30.6	69.4	23.1	76.9	23.1	76.9
Other Insurer	17.6	82.4	20.8	79.2	20.8	79.2
National HMO Chain	36.7	63.3	38.7	61.3	38.7	61.3
Independent	56.7	43.3	62.3	37.7	62.3	37.7
Provider-sponsored	52.6	47.4	60.5	39.5	60.5	39.5
Other	33.3	66.7	50.0	50.0	57.1	42.9

Note:
1. Excludes plans with 1,000 enrollees or fewer.
Source: GHAA's Annual HMO Industry Survey

Table 3
Profit Performance by Selected Plan Characteristics, 1988[1]

	Operating Profit per Member per Month				Gross Profit per Member per Month				Net Profit per Member per Month			
	Mean	25th Percentile	50th Percentile	75th Percentile	Mean	25th Percentile	50th Percentile	75th Percentile	Mean	25th Percentile	50th Percentile	75th Percentile
All Plans (n = 247)	$(3.54)	$(6.63)	$(.92)	$1.30	$(4.06)	$(7.15)	$(.96)	$1.08	$(3.87)	$(6.95)	$(1.01)	$1.04
MODEL												
Staff	1.74	(.69)	1.00	4.32	(.41)	(3.60)	.17	1.86	(.35)	(2.96)	.08	1.86
Group	(2.97)	(6.11)	(.40)	1.84	(4.25)	(5.99)	(1.84)	.92	(3.67)	(5.66)	(.78)	.92
Network	(3.93)	(6.65)	(1.29)	.99	(3.33)	(7.06)	(.03)	1.36	(2.97)	(6.41)	(.03)	1.33
IPA	(4.95)	(8.78)	(1.93)	.69	(5.11)	(9.05)	(1.47)	.71	(5.01)	(8.83)	(1.66)	.85
REGION												
New England	(4.85)	(6.29)	(2.66)	.28	(6.25)	(9.26)	(1.66)	.92	(6.15)	(9.26)	(1.67)	.92
Mid-Atlantic	(3.91)	(6.05)	(1.47)	1.57	(5.15)	(6.44)	(1.88)	.63	(4.72)	(6.44)	(1.55)	.95
South Atlantic	(4.15)	(9.76)	(1.64)	1.31	(4.62)	(8.96)	(1.72)	1.18	(4.59)	(8.48)	(1.60)	.85
East Central	(2.37)	(6.05)	.04	1.37	(2.67)	(6.17)	.05	1.69	(2.57)	(5.87)	.05	1.48
West Central	(5.72)	(9.55)	(3.43)	(.48)	(6.08)	(10.38)	(3.71)	.06	(5.65)	(9.16)	(2.59)	.06
Mountain/Pacific	(2.26)	(3.27)	(.07)	2.05	(2.42)	(2.25)	(.40)	1.45	(2.25)	(3.28)	(.91)	1.21
SIZE												
0–19,999	(5.97)	(13.05)	(2.98)	1.29	(6.20)	(14.44)	(1.99)	1.36	(5.80)	(14.44)	(1.87)	1.67
20,000–49,999	(4.88)	(9.21)	(2.14)	.58	(5.12)	(8.96)	(2.90)	.44	(4.79)	(7.87)	(2.46)	.34
50,000–99,999	(1.96)	(2.84)	(.49)	1.23	(2.71)	(5.53)	(.72)	.98	(2.53)	(4.39)	(.72)	.96
100,000 +	(.41)	(1.71)	.52	2.62	(1.42)	(2.77)	.34	1.63	(1.65)	(2.15)	.07	1.47
AGE												
1–3	(8.46)	(15.95)	(6.55)	(.30)	(9.00)	(17.06)	(6.95)	.02	(8.54)	(15.90)	(6.95)	.02
4–7	(4.12)	(8.53)	(1.23)	.57	(4.12)	(6.92)	(.78)	.96	(3.88)	(6.92)	(.78)	.71
8–15	(.58)	(2.59)	.22	1.89	(1.33)	(2.34)	.00	1.50	(1.29)	(2.34)	.01	1.48
16 +	.02	(1.53)	.83	2.64	(1.35)	(3.28)	(.39)	1.69	(1.38)	(3.28)	.08	1.17
TAX STATUS												
Nonprofit	(1.60)	(3.67)	(.60)	1.84	(2.11)	(4.05)	.00	1.08	[illegible]	(3.97)	.00	1.64
For-profit	(5.03)	(9.76)	(1.28)	1.06	(5.56)	(9.12)	(1.66)	1.09	(5.27)	(8.83)	(1.70)	.74
QUALIFICATION STATUS												
Federally qualified	(3.01)	(6.05)	(.65)	1.31	(3.80)	(6.44)	(.99)	1.04	(3.53)	(5.87)	(.99)	.85
Non-qualified	(4.56)	(8.75)	(1.30)	1.15	(4.56)	(9.08)	(.51)	1.49	(4.51)	(9.08)	(1.34)	1.17
OWNERSHIP												
Blue Cross/Blue Shield	(6.92)	(12.83)	(4.66)	.29	(7.94)	(13.74)	(6.10)	.00	(8.28)	(13.94)	(6.50)	(.45)
Other Insurer	(9.50)	(14.65)	(6.70)	(1.54)	(10.48)	(16.21)	(8.76)	(1.13)	(8.11)	(12.98)	(6.96)	(1.13)
National HMO Chain	(5.22)	(11.01)	(1.08)	2.02	(6.40)	(14.54)	(3.38)	1.84	(6.36)	[illegible]	(3.38)	1.62
Independent	.59	(1.69)	.36	1.89	.29	(1.66)	.46	1.69	.31	(1.67)	.48	1.69
Provider-sponsored	(2.59)	(5.39)	(.41)	1.34	(2.32)	(5.02)	.14	1.76	(2.47)	(5.02)	.14	1.47
Other	(.02)	(2.08)	(1.34)	.92	(1.62)	(3.86)	(.59)	.24	(1.87)	(3.86)	(1.01)	.12

Table 3 (continued)
Profit Performance by Selected Plan Characteristics, 1988[1]

	Operating Profit per Member per Month				Gross Profit per Member per Month				Net Profit per Member per Month			
	Mean	25th Percentile	50th Percentile	75th Percentile	Mean	25th Percentile	50th Percentile	75th Percentile	Mean	25th Percentile	50th Percentile	75th Percentile
Plans > 3 Years (n = 199)	$(2.07)	$(4.29)	$(.48)	$1.37	$(2.58)	$(4.90)	$(.26)	$1.36	$(2.47)	$(4.32)	$(.15)	$1.17
MODEL												
Staff	1.19	(.76)	.94	3.85	(1.05)	(3.86)	.10	1.64	(.99)	(3.58)	(.04)	1.64
Group	(2.47)	(6.11)	(.37)	1.84	(3.79)	(5.99)	(1.84)	.92	(3.49)	(5.66)	(.78)	.92
Network	(1.40)	(3.53)	(.10)	1.37	(.58)	(1.34)	.15	1.69	(.40)	(1.34)	.15	1.69
IPA	(3.25)	(5.34)	(.92)	.71	(3.24)	(5.63)	(.40)	1.21	(3.19)	(5.63)	(.44)	1.08
REGION												
New England	(1.60)	(6.11)	(.60)	.95	(2.76)	(6.92)	.42	1.04	(2.80)	(6.92)	.05	1.04
Mid-Atlantic	(1.58)	(4.06)	.26	1.82	(2.88)	(5.07)	(.42)	1.16	(2.36)	(4.56)	.12	1.56
South Atlantic	(4.38)	(9.88)	(2.06)	.71	(4.92)	(8.83)	(1.73)	.71	(4.82)	(8.83)	(1.71)	.71
East Central	(1.39)	(3.64)	.29	1.31	(1.71)	(3.34)	.21	1.64	(1.80)	(2.34)	.21	1.08
West Central	(2.66)	(5.34)	(1.69)	.53	(2.62)	(4.89)	(.48)	1.92	(2.63)	(4.89)	(.48)	1.63
Mountain/Pacific	(1.38)	(2.74)	.05	2.05	(1.70)	(2.06)	(.20)	1.48	(1.45)	(2.17)	(.23)	1.19
SIZE												
0-19,999	(1.97)	(4.69)	(.76)	1.75	(1.72)	(3.62)	.12	2.15	(1.33)	(3.62)	.12	2.15
20,000-49,999	(3.94)	(7.00)	(1.61)	.71	(4.19)	(7.99)	(1.51)	.64	(3.99)	(7.15)	(1.72)	.64
50,000-99,999	(1.91)	(2.66)	(.48)	1.31	(2.62)	(5.07)	(.44)	1.04	(2.43)	(3.97)	(.31)	1.01
100,000 +	(.48)	(2.13)	.41	2.60	(1.49)	(3.28)	.24	1.51	(1.70)	(2.24)	.06	1.48
AGE												
4-7	(4.12)	(8.53)	(1.23)	.57	(4.12)	(6.92)	(.78)	.96	(3.88)	(6.92)	(.78)	.71
8-15	(.58)	(2.59)	.22	1.89	(1.33)	(2.34)	.00	1.50	(1.29)	(2.34)	.01	1.48
16 +	.02	(1.53)	.83	2.64	(1.35)	(3.28)	.39	1.69	(1.38)	(3.28)	.08	1.17
TAX STATUS												
Nonprofit	(1.59)	(3.67)	(.63)	1.57	(2.14)	(4.05)	(.15)	.95	(2.04)	(3.97)	(.15)	1.04
For-profit	(2.54)	(4.81)	(.02)	1.37	(3.03)	(5.33)	(.40)	1.51	(2.90)	(5.07)	(.48)	1.30
QUALIFICATION STATUS												
Federally qualified	(1.50)	(3.45)	(.02)	1.49	(2.21)	(4.61)	(.37)	1.41	(2.15)	(4.10)	(.26)	1.26
Non-qualified	(3.66)	(7.50)	(.87)	.71	(3.63)	(7.74)	(.05)	1.08	(3.37)	(6.97)	(.05)	1.08
OWNERSHIP												
Blue Cross/Blue Shield	(5.44)	(9.26)	(2.55)	.40	(6.61)	(10.33)	(5.26)	(.07)	(6.64)	(10.33)	(4.85)	(.07)
Other Insurer	(6.40)	(10.40)	(4.12)	(.87)	(7.10)	(11.35)	(3.46)	(.49)	(5.18)	(9.05)	(2.71)	(.49)
National HMO Chain	(3.51)	(7.28)	(.51)	2.02	(4.86)	(9.47)	(2.77)	1.84	(5.01)	(9.47)	(2.76)	1.62
Independent	.71	(1.27)	(.39)	1.83	.46	(1.41)	.48	1.64	.49	(1.49)	.51	1.64
Provider-sponsored	(1.14)	(3.75)	.16	1.37	(.63)	(1.71)	.37	2.03	(.73)	(1.67)	.31	1.48
Other	(.02)	(2.08)	(1.34)	.92	(1.62)	(3.86)	(.59)	.21	(1.87)	(3.86)	(1.01)	.12

Note:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.

Source: GHAA's Annual HMO Industry Survey

Table 4
Mean Rates of Return by Selected Plan Characteristics, 1988[1]

	All Plans						Plans > 3 Years					
	Gross Return on Assets (n = 251)	Net Return on Assets (n = 251)	Gross Return on Revenues (n = 251)	Net Return on Revenues (n = 251)	Gross Return on Equity[3] (n = 209)	Net Return on Equity[3] (n = 209)	Gross Return on Assets (n = 192)	Net Return on Assets (n = 192)	Gross Return on Revenues (n = 192)	Net Return on Revenues (n = 192)	Gross Return on Equity[3] (n = 156)	Net Return on Equity[3] (n = 156)
All Plans (Mean)	-.157	-.153	-.044	-.042	-1.219	-1.204	-.110	-.107	-.027	-.026	-.875	-.856
(75th percentile)	*-.051*	*-0.49*	*.012*	*.013*	*.349*	*.307*	*.057*	*.054*	*.015*	*.014*	*.368*	*.331*
(Median)	*-.039*	*-.034*	*-.009*	*-.009*	*.006*	*.006*	*-.008*	*-.006*	*-.003*	*-.002*	*.065*	*.069*
(25th percentile)	*-.292*	*-.291*	*-.078*	*-.075*	*-1.194*	*-1.051*	*-.260*	*-.230*	*-.059*	*-.057*	*-.611*	*-.551*
MODEL												
Staff	-.045	-.040	-.008	-.007	-.129	-.135	-.053	-.047	-.013	-.012	-.029	-.036
Group	-.146	-.131	-.054	-.046	-.891	-.861	-.151	-.141	-.051	-.046	-.936	-.959
Network	-.150	-.149	-.038	-.034	-.517	-.548	-.023	-.028	-.007	-.007	-.288	-.340
IPA	-.191	-.191	-.052	-.053	-1.741	-1.715	-.138	-.139	-.030	-.030	-1.313	-1.251
REGION												
New England	-.184	-.178	-.050	-.047	.062	-.122	-.139	-.136	-.029	-.029	.468	.498
Mid-Atlantic	-.172	-.152	-.059	-.052	-1.780	-1.693	-.066	-.042	-.029	-.021	-1.014	-.910
South Atlantic	-.252	-.248	-.068	-.065	-1.738	-1.708	-.267	-.260	-.070	-.066	-2.048	-2.023
East Central	-.113	-.113	-.029	-.027	-.611	-.624	-.092	-.096	-.015	-.016	-.575	-.562
West Central	-.242	-.232	-.073	-.067	-2.785	-2.472	-.110	-.114	-.033	-.033	-1.754	-1.646
Mountain/Pacific	-.054	-.063	-.012	-.017	-.506	-.744	-.035	-.041	-.007	-.009	-.119	-.139
SIZE												
0–19,999	-.187	-.185	-.062	-.061	-1.652	-1.666	-.032	-.031	-.003	-.002	-.217	-.193
20,000–49,999	-.227	-.217	-.060	-.056	-.967	-.933	-.186	-.182	-.051	-.048	-.857	-.869
50,000–99,999	-.142	-.137	-.035	-.032	-1.414	-1.331	-.136	-.130	-.034	-.032	-1.456	-1.369
100,000 +	-.047	-.051	-.011	-.013	-.636	-.674	-.049	-.053	-.011	-.014	-.659	-.693
AGE												
1–3	-.308	-.302	-.097	-.094	-2.232	-2.227	—	—	—	—	—	—
4–7	-.164	-.162	-.043	-.041	-1.321	-1.272	-.164	-.162	-.043	-.041	-1.321	-1.272
8–15	-.073	-.070	-.016	-.015	-.613	-.613	-.073	-.070	-.016	-.015	-.613	-.613
16 +	-.045	-.047	-.014	-.015	-.262	-.285	-.045	-.047	-.014	-.015	-.262	-.285
TAX STATUS												
Nonprofit	-.104	-.100	-.027	-.026	-.798	-.794	-.103	-.098	-.024	-.022	-.587	-.579
For-profit	-.197	-.193	-.057	-.055	-1.507	-1.484	-.115	-.116	-.031	-.031	-1.121	-1.094
QUALIFICATION STATUS												
Federally qualified	-.152	-.144	-.045	-.042	-1.267	-1.184	-.116	-.113	-.030	.029	-.990	-.968
Non-qualified	-.166	-.172	-.041	-.042	-1.125	-1.242	-.089	-.088	-.018	-.017	-.506	-.496
OWNERSHIP												
Blue Cross/Blue Shield	-.263	-.276	-.080	-.086	-3.551	-3.832	-.238	-.238	-.064	-.064	-3.936	-3.895
Other Insurer	-.343	-.291	-.108	-.086	-2.712	-2.144	-.200	-.164	-.062	-.046	-1.694	-1.325
National HMO Chain	-.247	-.246	-.085	-.083	-.416	-.446	-.231	-.233	-.070	-.071	-.243	-.281
Independent	-.035	-.031	-.006	-.005	-.156	-.168	-.002	.001	.002	.003	.083	.069
Provider-sponsored	-.118	-.123	-.021	-.022	-.553	-.590	-.081	-.088	-.008	-.009	-.358	-.397
Other	-.095	-.101	-.026	-.028	-1.084	-1.145	-.076	-.084	-.021	-.024	-.246	-.320

Table 4 (continued)
Mean Rates of Return by Selected Plan Characteristics, 1988[1]

	Profitable Plans > 3 Years[2]						Unprofitable Plans > 3 Years					
	Gross Return on Assets (n = 94)	Net Return on Assets (n = 94)	Gross Return on Revenues (n = 94)	Net Return on Revenues (n = 94)	Gross Return on Equity[3] (n = 91)	Net Return on Equity[3] (n = 91)	Gross Return on Assets (n = 98)	Net Return on Assets (n = 98)	Gross Return on Revenues (n = 98)	Net Return on Revenues (n = 98)	Gross Return on Equity[3] (n = 65)	Net Return on Equity[3] (n = 65)
All Plans	.078	.066	.022	.018	.473	.406	-.289	-.273	-.075	-.069	-2.762	-2.623
MODEL												
Staff	.057	.048	.023	.019	.336	.286	-.184	-.160	-.056	-.049	-.799	-.715
Group	.092	.074	.021	.018	.468	.342	-.322	-.291	-.101	-.091	-2.247	-2.173
Network	.091	.078	.024	.021	.447	.382	-.207	-.197	-.056	-.050	-2.127	-2.145
IPA	.077	.066	.020	.017	.544	.488	-.324	-.316	-.074	-.071	-3.595	-3.388
REGION												
New England	.042	.048	.011	.010	.468	.498	-.411	-.411	-.088	-.088	*	*
Mid Atlantic	.095	.095	.021	.021	.377	.375	-.228	-.179	-.079	-.063	-2.544	-2.325
South Atlantic	.090	.080	.027	.024	.373	.343	-.445	-.430	-.118	-.111	-3.560	-3.502
East Central	.064	.049	.022	.017	.473	.397	-.319	-.307	-.069	-.064	-2.719	-2.704
West Central	.113	.086	.027	.021	.606	.461	-.278	-.264	-.078	-.073	-4.823	-4.385
Mountain/Pacific	.073	.057	.021	.016	.492	.387	-.133	-.129	-.032	-.031	-.844	-.763
SIZE												
0–19,999	.093	.090	.027	.027	.311	.302	-.220	-.212	-.048	-.046	-1.114	-1.036
20,000–49,999	.076	.070	.022	.020	.432	.388	-.339	-.328	-.093	-.087	-2.217	-2.196
50,000–99,999	.077	.061	.018	.015	.555	.458	-.311	-.288	-.078	-.070	-3.643	-3.354
100,000 +	.070	.053	.021	.015	.522	.432	-.219	-.204	-.059	-.055	-3.190	-3.104
AGE												
4–7	.088	.077	.022	.019	.468	.408	-.364	-.352	-.094	-.088	-3.381	-3.207
8–15	.073	.060	.023	.019	.570	.491	-.232	-.209	-.058	-.051	-2.698	-2.558
16 +	.065	.054	.019	.015	.260	.202	-.178	-.169	-.054	-.050	-1.022	-.993
TAX STATUS												
Nonprofit	.059	.056	.020	.018	.379	.371	-.280	-.266	-.071	-.066	-2.198	-2.162
For-profit	.098	.077	.024	.018	.565	.440	-.297	-.280	-.078	-.072	-3.162	-2.950
QUALIFICATION STATUS												
Federally qualified	.078	.063	.021	.016	.516	.431	-.289	-.271	-.076	-.070	-2.930	-2.771
Non-qualified	.076	.074	.025	.024	.352	.334	-.287	-.281	-.070	-.067	-2.089	-2.028
OWNERSHIP												
Blue Cross/Blue Shield	.060	.049	.020	.018	.808	.767	-.360	-.355	-.098	-.097	-6.605	-6.517
Other Insurer	*	*	*	*	*	*	-.267	-.215	-.081	-.060	-2.276	-1.765
National HMO Chain	.109	.090	.030	.025	.564	.441	-.451	-.442	-.135	-.133	-1.453	-1.364
Independent	.072	.063	.021	.018	.402	.344	-.123	-.101	-.031	-.023	-.650	-.562
Provider-sponsored	.087	.073	.021	.018	.465	.404	-.327	-.325	-.051	-.051	-2.228	-2.217
Other	*	*	*	*	*	*	*	*	*	*	*	*

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.
3. Plans with negative equity are excluded.

*Data are not shown where cell size is less than 4 plans.

Source: CHAA's Annual HMO Industry Survey

Table 5
Mean Liquidity Measures by Selected Plan Characteristics, 1988[1]

	All Plans (n = 241)				Plans > 3 Years (n = 184)			
	Current Ratio	Days Premiums Receivable	Days Cash on Hand	Days Claims & IBNR Payable	Current Ratio	Days Premiums Receivable	Days Cash on Hand	Days Claims & IBNR Payable
All Plans (Mean)	.96	19.96	22.40	52.80	.94	19.06	18.04	48.64
(75th percentile)	*1.18*	*27.09*	*37.08*	*69.26*	*1.16*	*26.15*	*28.63*	*63.76*
(Median)	*1.01*	*14.99*	*12.41*	*51.09*	*.97*	*14.50*	*10.73*	*47.42*
(25th percentile)	*.72*	*8.68*	*.78*	*36.43*	*.72*	*8.66*	*.42*	*33.14*
MODEL								
Staff	.96	19.35	18.98	47.26	.98	20.60	17.78	46.46
Group	.92	16.46	14.36	32.14	.91	15.28	14.23	30.51
Network	1.04	18.81	21.35	48.07	1.06	19.07	21.56	44.83
IPA	.95	21.23	25.45	60.32	.91	19.85	18.56	56.52
REGION								
New England	1.04	20.06	29.67	60.66	.93	17.57	15.53	52.10
Mid-Atlantic	.90	24.12	12.69	64.95	.92	24.89	14.02	58.76
South Atlantic	.95	22.30	24.00	53.94	.89	20.78	21.01	50.75
East Central	.92	16.64	20.73	52.35	.91	15.40	13.20	51.16
West Central	.99	18.95	19.17	46.96	1.01	17.24	18.69	41.65
Mountain/Pacific	.99	20.76	29.21	46.35	.99	20.59	24.28	42.04
SIZE								
0–19,999	1.04	20.18	33.66	62.06	1.08	16.85	26.71	54.25
20,000–49,999	.93	18.56	23.81	52.04	.91	17.37	20.50	47.99
50,000–99,999	.93	22.12	15.49	50.60	.93	22.15	14.93	50.09
100,000 +	.92	18.81	14.88	44.81	.92	18.09	15.15	44.85
AGE								
1–3	1.00	22.87	36.46	66.24	—	—	—	—
4–7	.94	18.59	18.42	50.92	.94	18.59	18.42	50.92
8–15	.96	19.34	18.30	50.33	.96	19.34	18.30	50.33
16 +	.91	19.67	16.43	38.72	.91	19.67	16.43	38.72
TAX STATUS								
Nonprofit	.92	19.73	18.33	48.53	.92	20.06	17.02	47.03
For-profit	.98	20.11	25.13	55.67	.97	18.14	18.98	50.11
QUALIFICATION STATUS								
Federally qualified	.97	21.21	19.51	49.65	.95	20.27	17.03	45.93
Non-qualified	.93	17.30	28.54	59.50	.91	14.95	21.46	57.79
OWNERSHIP								
Blue Cross/Blue Shield	.90	20.34	10.60	59.97	.86	18.55	9.19	56.11
Other Insurer	1.07	22.41	42.02	55.54	1.03	19.52	25.81	43.00
National HMO Chain	.80	17.69	13.68	41.93	.79	17.17	12.67	39.56
Independent	.98	20.25	22.87	54.73	.98	20.07	21.47	53.55
Provider-sponsored	.99	18.79	23.53	50.58	1.03	17.98	20.24	44.82
Other	.84	21.73	13.77	43.06	.91	26.07	15.79	38.92

Table 5 (continued)
Mean Liquidity Measures by Selected Plan Characteristics, 1988[1]

	Profitable Plans > 3 Years (n = 85)[2]				Unprofitable Plans > 3 Years (n = 99)			
	Current Ratio	Days Premiums Receivable	Days Cash on Hand	Days Claims & IBNR Payable	Current Ratio	Days Premiums Receivable	Days Cash on Hand	Days Claims & IBNR Payable
All Plans	1.06	18.20	23.48	47.65	.84	19.79	13.37	49.48
MODEL								
Staff	1.10	18.44	20.76	43.16	.84	22.89	14.59	49.98
Group	1.13	12.22	27.99	29.43	.77	17.28	5.28	31.22
Network	1.12	19.05	25.51	46.16	.95	19.10	14.98	42.61
IPA	1.00	19.69	22.37	55.73	.85	19.98	15.72	57.12
REGION								
New England	1.06	15.63	20.18	56.77	.73	20.48	8.56	45.08
Mid-Atlantic	1.10	24.22	18.77	48.85	.75	25.52	9.68	67.84
South Atlantic	1.03	22.02	23.10	41.77	.84	20.32	20.25	54.02
East Central	.98	14.67	17.00	53.65	.82	16.37	8.07	47.80
West Central	1.22	18.12	27.09	40.51	.84	16.52	11.87	42.58
Mountain/Pacific	1.06	19.53	35.98	40.76	.93	21.37	15.63	42.99
SIZE								
0-19,999	1.21	16.32	34.99	53.52	.97	17.31	19.71	54.88
20,000-49,999	1.07	13.88	27.00	41.44	.83	19.33	16.85	51.67
50,000-99,999	1.06	23.04	21.78	50.75	.83	21.42	9.32	49.56
100,000 +	1.01	17.08	18.51	46.40	.80	19.49	10.52	42.70
AGE								
4-7	1.08	16.54	24.53	45.90	.85	19.96	14.31	54.31
8-15	1.06	19.06	21.76	50.75	.85	19.62	14.75	49.90
16 +	1.02	19.69	25.19	44.30	.79	19.64	7.10	32.76
TAX STATUS								
Nonprofit	1.07	19.27	24.65	48.80	.78	20.78	10.05	45.42
For-profit	1.05	17.16	22.34	46.53	.90	18.94	16.25	53.01
QUALIFICATION STATUS								
Federally qualified	1.05	18.58	22.49	45.11	.86	21.70	12.42	46.62
Non-qualified	1.09	16.97	26.69	55.91	.76	13.11	16.70	59.50
OWNERSHIP								
Blue Cross/Blue Shield	.90	18.14	14.40	60.58	.84	18.69	7.37	54.56
Other Insurer	*	*	*	*	1.02	19.99	22.42	44.90
National HMO Chain	1.10	15.95	20.75	43.52	.60	17.91	7.74	37.14
Independent	1.06	19.79	25.12	53.07	.86	20.53	15.62	54.31
Provider-sponsored	1.10	15.79	23.04	38.98	.93	21.03	16.32	53.00
Other	*	*	*	*	*	*	*	*

Notes:
1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.
*Data are not shown where cell size is less than 4 plans.
Source: GHAA's Annual HMO Industry Survey

Table 6
Mean Capital Structure Measures by Selected Plan Characteristics, 1988[1]

	All Plans (n = 219)							Plans > 3 Years (n = 169)						
	Equity Financing Ratio	Long-Term Debt to Equity Ratio	Cash Flow to Debt Ratio	Tangible Asset Financing Ratio	Statutory Reserves/ Total Assets	IBNR/ Current Liabilities	Equity $ PMPM[3]	Equity Financing Ratio	Long-Term Debt to Equity Ratio	Cash Flow to Debt Ratio	Tangible Asset Financing Ratio	Statutory Reserves/ Total Assets	IBNR/ Current Liabilities	Equity $ PMPM[3]
All Plans (Mean)	.118	.166	-.078	.904	.031	.312	$4.05	.120	.204-	-.007	.895	.024	.314	$4.06
(75th percentile)	*.31*	*.33*	*.16*	*.98*	*.04*	*.49*	*7.14*	*.29*	*.52*	*.18*	*.98*	*.03*	*.50*	*6.59*
(Median)	*.166*	*.000*	*.030*	*.847*	*.008*	*.309*	*3.13*	*.157*	*.007*	*.064*	*.855*	*.004*	*.303*	*2.90*
(25th percentile)	*.04*	*.00*	*-.22*	*.71*	*.00*	*.12*	*.82*	*.04*	*.00*	*-.08*	*.73*	*.00*	*.12*	*.76*
MODEL														
Staff	.127	.533	.126	.888	.017	.233	5.72	.124	.561	.117	.892	.017	.238	5.43
Group	.247	.320	-.015	.754	.038	.176	6.87	.258	.367	.002	.743	.023	.173	6.80
Network	.066	.039	-.049	.952	.023	.346	1.73	.123	.114	.082	.886	.019	.347	2.38
IPA	.099	.053	-.158	.931	.036	.359	3.46	.079	.039	-.084	.940	.029	.375	3.20
REGION														
New England	.009	.035	-.088	1.032	.016	.259	1.21	-.023	.084	-.009	1.027	.012	.286	.77
Mid-Atlantic	.070	-.186	-.023	.949	.022	.338	2.38	.113	-.228	.082	.909	.016	.315	3.19
South Atlantic	.185	.578	-.178	.828	.047	.355	6.54	.167	.750	-.161	.844	.043	.352	5.45
East Central	.139	.178	-.073	.881	.033	.308	4.75	.129	.217	.005	.873	.029	.326	4.42
West Central	.107	.348	-.134	.910	.036	.327	2.72	.084	.443	-.002	.928	.026	.324	1.69
Mountain/Pacific	.112	-.062	.012	.918	.023	.278	3.99	.160	-.054	.033	.875	.013	.275	6.00
SIZE														
0-19,999	.162	-.007	-.184	.866	.053	.273	5.28	.208	.008	.009	.786	.044	.264	6.67
20,000-49,999	.058	-.451	-.122	.970	.034	.355	3.27	.042	-.629	-.076	.989	.031	.353	2.94
50,000-99,999	.098	.547	-.034	.922	.020	.325	2.94	.106	.581	-.028	.913	.018	.322	3.10
100,000 +	.148	.636	.072	.862	.011	.307	4.49	.149	.623	.071	.862	.011	.303	4.46
AGE														
1-3	.112	.039	-.317	.934	.056	.308	4.02	—	—	—	—	—	—	—
4-7	.116	-.020	-.090	.904	.040	.338	3.86	.116	-.020	-.090	.904	.040	.338	3.86
8-15	.096	.306	.046	.919	.013	.308	3.46	.096	.306	.046	.919	.013	.308	3.46
16 +	.187	.533	.083	.815	.009	.267	5.94	.187	.533	.083	.815	.009	.267	5.94
TAX STATUS														
Nonprofit	.146	.429	.020	.857	.021	.299	5.52	.137	.471	.026	.866	.018	.303	5.26
For-profit	.098	-.027	-.150	.938	.039	.322	2.97	.104	-.053	-.038	.923	.030	.323	2.90
QUALIFICATION STATUS														
Federally qualified	.129	.236	-.060	.892	.027	.319	3.99	.122	.262	.004	.897	.021	.319	3.86
Non-qualified	.094	.011	-.118	.929	.041	.297	4.18	.114	.006	-.043	.886	.034	.297	4.76
OWNERSHIP														
Blue Cross/Blue Shield	.073	-.049	-.215	.946	.035	.413	2.60	.048	-.049	-.135	.954	.020	.427	2.11
Other Insurer	.055	.025	-.373	.959	.041	.331	1.25	.053	-.104	-.212	.948	.024	.341	-.17
National HMO Chain	.120	.462	-.169	.893	.035	.304	5.59	.100	.504	-.083	.914	.031	.293	4.99
Independent	.158	.298	.089	.855	.019	.299	5.09	.165	.341	.101	.847	.019	.304	5.16
Provider-sponsored	.140	.077	-.002	.909	.039	.264	4.66	.146	.092	.025	.892	.034	.263	4.86
Other	.060	.248	.050	.940	.019	.208	3.63	.060	.248	.050	.940	.019	.208	3.63

Table 6 (continued)
Mean Capital Structure Measures, by Selected Plan Characteristics, 1988[1]

	Profitable Plans > 3 Years (n = 91)[2]							Unprofitable Plans > 3 Years (n = 78)						
	Equity Financing Ratio	Long-Term Debt to Equity Ratio	Cash Flow to Debt Ratio	Tangible Asset Financing Ratio	Statutory Reserves/ Total Assets	IBNR/ Current Liabilities	Equity $ PMPM	Equity Financing Ratio	Long-Term Debt to Equity Ratio	Cash Flow to Debt Ratio	Tangible Asset Financing Ratio	Statutory Reserves/ Total Assets	IBNR/ Current Liabilities	Equity $ PMPM
All Plans	.201	.726	.183	.804	.020	.295	$6.02	.026	-.404	-.227	1.001	.028	.335	$1.77
MODEL														
Staff	.238	1.444	.216	.775	.012	.217	10.00	-.011	-.487	-.000	1.030	.023	.263	.01
Group	.248	.521	.232	.739	.026	.156	6.29	.270	.185	-.270	.748	.021	.194	7.41
Network	.221	.334	.191	.782	.014	.364	5.17	-.072	-.326	-.136	1.095	.028	.313	-3.20
IPA	.163	.616	.150	.844	.025	.347	4.49	-.004	-.539	-.318	1.037	.032	.402	1.91
REGION														
New England	.136	1.627	.108	.866	.018	.262	4.36	-.309	-2.690	-.219	1.319	.003	.329	-5.69
Mid-Atlantic	.161	-.190	.217	.860	.009	.262	4.67	.045	-.283	-.112	.979	.025	.386	1.05
South Atlantic	.295	2.034	.239	.712	.029	.289	8.16	.086	-.052	-.412	.926	.051	.391	3.76
East Central	.205	.455	.160	.790	.022	.322	6.57	.004	-.176	-.250	1.011	.042	.332	.88
West Central	.206	.816	.226	.811	.034	.355	5.04	-.011	.150	-.181	1.020	.021	.300	-.94
Mountain/Pacific	.201	.591	.174	.801	.016	.263	6.33	.111	-.813	-.134	.963	.009	.288	5.61
SIZE														
0–19,999	.258	.258	.222	.728	.043	.278	9.24	.142	-.319	-.269	.862	.045	.245	3.30
20,000–49,999	.216	.196	.189	.790	.020	.349	6.82	-.100	-1.300	-.294	1.151	.041	.355	-.23
50,000–99,999	.160	1.242	.167	.858	.017	.292	3.90	.053	-.080	-.223	.967	.020	.351	2.31
100,000 +	.198	.849	.171	.806	.011	.277	5.60	.060	.214	-.109	.963	.011	.352	2.38
AGE														
4–7	.194	.696	.178	.812	.035	.312	5.29	.039	-.717	-.351	.994	.045	.362	2.47
8–15	.188	.489	.189	.817	.013	.292	6.09	-.023	.066	-.142	1.052	.014	.329	0.23
16 +	.246	1.318	.179	.756	.007	.268	7.41	.104	.578	-.053	.897	.011	.265	3.86
TAX STATUS														
Nonprofit	.202	1.132	.161	.794	.016	.307	7.29	.048	-.437	-.158	.964	.021	.299	2.48
For-profit	.201	.272	.207	.814	.025	.282	4.60	.008	-.378	-.284	1.031	.034	.364	1.20
QUALIFICATION STATUS														
Federally qualified	.187	.910	.192	.817	.019	.298	5.40	.054	-.417	-.192	.981	.024	.340	2.24
Non-qualified	.240	.211	.158	.765	.025	.289	7.74	-.100	-.345	-.388	1.093	.049	.310	-.36
OWNERSHIP														
Blue Cross/Blue Shield	.238	.400	.148	.763	.029	.487	6.88	.047	-.273	-.277	1.050	.016	.398	.27
Other Insurer	*	*	*	*	*	*	*	.010	-.294	-.343	.991	.023	.347	-1.10
National HMO Chain	.230	.747	.205	.772	.042	.305	6.10	.030	.262	-.371	1.057	.019	.281	3.89
Independent	.182	.629	.177	.822	.013	.290	6.39	.132	-.234	-.052	.897	.031	.333	2.70
Provider-sponsored	.209	1.007	.185	.801	.023	.242	5.10	.035	-1.530	-.257	1.051	.052	.300	4.42
Other	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.
3. Includes 26 plans with negative equity.

*Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 7
Mean Activity Ratios by Selected Plan Characteristics, 1988[1]

	All Plans (n = 244)			Plans > 3 Years (n = 184)		
	Premium Receivable Turnover	Current Asset Turnover	Total Asset Turnover	Premium Receivable Turnover	Current Asset Turnover	Total Asset Turnover
All Plans	.7	6.1	4.0	.6	6.3	4.0
(75th percentile)	*.9*	*7.6*	*5.0*	*.9*	*7.5*	*5.0*
(Median)	*.5*	*5.3*	*3.6*	*.5*	*5.5*	*3.7*
(25th percentile)	*.3*	*3.8*	*2.7*	*.3*	*4.2*	*2.8*
MODEL						
Staff	.7	5.8	2.9	.7	5.9	2.9
Group	.6	7.1	3.9	.6	7.4	4.0
Network	.7	6.1	4.7	.7	5.8	4.5
IPA	.7	6.0	4.1	.6	6.3	4.3
REGION						
New England	.7	5.6	3.8	.6	6.1	4.1
Mid-Atlantic	.8	6.2	3.9	.8	5.9	3.6
South Atlantic	.7	6.0	3.6	.6	6.5	3.7
East Central	.6	6.5	4.3	.6	6.5	4.2
West Central	.6	6.1	4.3	.6	6.5	4.5
Mountain/Pacific	.7	6.0	3.9	.7	6.2	3.9
SIZE						
0–19,999	.7	5.5	3.8	.6	5.5	3.8
20,000–49,999	.6	6.6	4.3	.6	6.9	4.3
50,000–99,999	.7	6.2	4.3	.7	6.2	4.3
100,000+	.7	6.4	3.5	.6	6.5	3.5
AGE						
1–3	.7	5.5	3.9	—	—	—
4–7	.7	6.4	4.6	.7	6.4	4.6
8–15	.6	6.0	3.7	.6	6.0	3.7
16+	.7	7.0	3.3	.7	7.0	3.3
TAX STATUS						
Nonprofit	.7	6.1	3.7	.7	6.2	3.7
For-profit	.7	6.1	4.2	.6	6.5	4.3
QUALIFICATION STATUS						
Federally qualified	.7	6.1	4.0	.7	6.4	4.0
Non-qualified	.6	6.1	4.1	.6	6.2	4.0
OWNERSHIP						
Blue Cross/Blue Shield	.6	5.5	3.9	.6	6.1	4.2
Other Insurer	.8	5.3	3.8	.7	6.2	4.2
National HMO Chain	.6	7.5	3.9	.6	7.8	3.9
Independent	.7	5.9	3.7	.7	6.0	3.7
Provider-sponsored	.6	6.7	4.8	.6	6.3	4.7
Other	.7	6.4	3.2	.9	6.2	3.1

Table 7 (continued)
Mean Activity Ratios by Selected Plan Characteristics, 1988[1]

	Profitable Plans > 3 Years (n = 88)[2]			Unprofitable Plans > 3 Years (n = 96)		
	Premium Receivable Turnover	Current Asset Turnover	Total Asset Turnover	Premium Receivable Turnover	Current Asset Turnover	Total Asset Turnover
All Plans	.6	5.6	3.7	.7	7.0	4.3
MODEL						
Staff	.7	4.6	2.5	.8	7.2	3.4
Group	.5	7.1	4.0	.6	7.7	3.9
Network	.6	5.8	4.3	.7	5.8	4.8
IPA	.7	5.5	3.8	.6	7.0	4.7
REGION						
New England	.5	5.0	3.7	.7	7.7	4.7
Mid-Atlantic	.8	5.1	3.9	.8	6.7	3.3
South Atlantic	.7	5.8	3.3	.6	6.8	3.8
East Central	.6	6.0	3.6	.6	7.2	5.1
West Central	.6	5.2	4.2	.5	7.5	4.7
Mountain/Pacific	.6	5.7	3.6	.7	6.7	4.2
SIZE						
0–19,999	.6	4.3	3.2	.6	6.8	4.4
20,000–49,999	.5	6.1	4.1	.6	7.3	4.4
50,000–99,999	.8	5.3	4.0	.7	6.8	4.6
100,000 +	.6	6.1	3.4	.7	7.0	3.7
AGE						
4–7	.7	5.7	4.3	.7	6.9	4.8
8–15	.6	5.1	3.4	.6	6.9	4.1
16 +	.7	6.7	3.3	.7	7.5	3.2
TAX STATUS						
Nonprofit	.7	5.1	3.2	.7	7.3	4.2
For-profit	.6	6.1	4.2	.6	6.8	4.5
QUALIFICATION STATUS						
Federally qualified	.6	5.7	3.8	.7	7.0	4.2
Non-qualified	.7	5.3	3.4	.5	7.1	4.7
OWNERSHIP						
Blue Cross/Blue Shield	.5	5.5	3.4	.6	6.3	4.5
Other Insurer	*	*	*	.7	6.2	4.2
National HMO Chain	.6	6.6	3.7	.6	8.6	4.0
Independent	.7	5.4	3.4	.7	7.1	4.2
Provider-sponsored	.7	5.7	4.4	.6	7.2	5.0
Other	*	*	*	*	*	*

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.

2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

*Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 8
Mean Profitability Ratios by Selected Plan Characteristics, 1988[1]

	All Plans (n = 248)					Plans > 3 Years (n = 191)				
	Healthcare Expense Ratio	Administrative Expense Ratio	Gross Profit Margin	Net Profit Margin	Operating Profit Margin	Healthcare Expense Ratio	Administrative Expense Ratio	Gross Profit Margin	Net Profit Margin	Operating Profit Margin
All Plans	.921	.147	-.050	-.049	-.044	.919	.130	-.032	-.031	-.026
(75th percentile)	*.969*	*.174*	*.012*	*.013*	*.018*	*.960*	*.160*	*.015*	*.015*	*.019*
(Median)	*.910*	*.130*	*-.011*	*-.012*	*.011*	*.912*	*.124*	*-.004*	*-.002*	*-.006*
(25th percentile)	*.869*	*.101*	*-.085*	*-.083*	*-.080*	*.873*	*.095*	*-.065*	*-.063*	*-.057*
MODEL										
Staff	.897	.134	-.008	-.007	.023	.902	.132	-.014	-.012	.012
Group	.956	.119	-.057	-.049	-.042	.958	.112	-.052	-.047	-.036
Network	.909	.163	-.053	-.047	-.057	.900	.134	-.012	-.009	-.019
IPA	.921	.155	-.059	-.060	-.059	.916	.135	-.036	-.037	-.039
REGION										
New England	.905	.163	-.053	-.052	-.041	.906	.137	-.029	-.029	-.017
Mid-Atlantic	.917	.156	-.059	-.052	-.046	.914	.133	-.033	-.025	-.020
South Atlantic	.920	.163	-.065	-.064	-.060	.926	.161	-.066	-.065	-.060
East Central	.925	.129	-.038	-.037	-.031	.923	.115	-.022	-.023	-.019
West Central	.943	.163	-.085	-.079	-.079	.929	.128	-.034	-.034	-.033
Mountain/Pacific	.908	.135	-.021	-.025	-.021	.911	.125	-.017	-.017	-.014
SIZE										
0-19,999	.912	.182	-.069	-.068	-.065	.898	.143	-.011	-.011	-.019
20,000-49,999	.931	.156	-.069	-.064	-.066	.924	.148	-.053	-.051	-.050
50,000-99,999	.923	.125	-.036	-.033	-.026	.925	.123	-.035	-.032	-.026
100,000 +	.920	.115	-.019	-.021	-.008	.921	.115	-.020	-.022	-.009
AGE										
1-3	.927	.203	-.112	-.108	-.102	—	—	—	—	—
4-7	.925	.142	-.048	-.046	-.049	.925	.142	-.048	-.046	-.049
8-15	.911	.124	-.019	-.018	-.012	.911	.124	-.019	-.018	-.012
16 +	.924	.114	-.018	-.019	.000	.924	.114	-.018	-.019	.000
TAX STATUS										
Nonprofit	.923	.127	-.028	-.027	-.020	.930	.121	-.030	-.028	-.024
For-profit	.920	.163	-.067	-.065	-.062	.909	.140	-.034	-.033	-.029
QUALIFICATION STATUS										
Federally qualified	.924	.141	-.047	-.044	-.038	.920	.129	-.031	-.030	-.023
Non-qualified	.916	.159	-.056	-.057	-.054	.919	.134	-.034	-.034	-.037
OWNERSHIP										
Blue Cross/Blue Shield	.957	.142	-.082	-.088	-.073	.960	.130	-.078	-.079	-.065
Other Insurer	.949	.184	-.112	-.090	-.102	.948	.141	-.063	-.046	-.058
National HMO Chain	.951	.155	-.096	-.094	-.080	.943	.138	-.071	-.072	-.053
Independent	.887	.139	-.004	-.003	-.001	.892	.129	.002	.003	.004
Provider-sponsored	.905	.146	-.034	-.036	-.038	.897	.128	-.006	-.008	-.014
Other	.954	.097	-.026	-.028	.031	.932	.103	-.021	-.024	-.006

Table 8 (continued)
Mean Profitability Ratios by Selected Plan Characteristics, 1988[1]

	Profitable Plans > 3 Years (n = 92)[2]					Unprofitable Plans > 3 Years (n = 99)				
	Healthcare Expense Ratio	Administrative Expense Ratio	Gross Profit Margin	Net Profit Margin	Operating Profit Margin	Healthcare Expense Ratio	Administrative Expense Ratio	Gross Profit Margin	Net Profit Margin	Operating Profit Margin
All Plans	.880	.118	.022	.019	.020	.956	.141	-.082	-.077	-.069
MODEL										
Staff	.884	.117	.024	.020	.035	.923	.149	-.056	-.049	-.015
Group	.919	.084	.022	.018	.015	.984	.131	-.100	-.090	-.070
Network	.878	.118	.024	.021	.016	.935	.160	-.069	-.056	-.073
IPA	.867	.130	.021	.017	.016	.958	.139	-.085	-.084	-.085
REGION										
New England	.892	.115	.011	.010	.011	.928	.170	-.088	-.088	-.059
Mid-Atlantic	.862	.127	.021	.021	.035	.966	.138	-.088	-.072	-.075
South Atlantic	.851	.150	.027	.024	.019	.963	.166	-.112	-.110	-.099
East Central	.882	.115	.023	.018	.020	.973	.114	-.076	-.073	-.066
West Central	.902	.104	.030	.023	.010	.948	.145	-.078	-.073	-.064
Mountain/Pacific	.887	.111	.021	.016	.018	.935	.138	-.055	-.050	-.046
SIZE										
0-19,999	.879	.130	.029	.028	.013	.923	.159	-.064	-.062	-.061
20,000-49,999	.864	.137	.021	.019	.016	.961	.155	-.098	-.093	-.091
50,000-99,999	.885	.109	.019	.016	.022	.958	.134	-.080	-.072	-.066
100,000 +	.886	.108	.022	.015	.024	.964	.123	-.072	-.069	-.050
AGE										
4-7	.870	.129	.023	.020	.013	.968	.151	-.102	-.097	-.097
8-15	.886	.109	.023	.019	.026	.936	.140	-.063	-.056	-.050
16 +	.888	.116	.019	.015	.020	.968	.111	-.063	-.060	-.024
TAX STATUS										
Nonprofit	.894	.114	.020	.019	.012	.964	.128	-.078	-.073	-.058
For-profit	.866	.123	.024	.018	.027	.947	.155	-.086	-.080	-.080
QUALIFICATION STATUS										
Federally qualified	.882	.116	.021	.017	.023	.953	.141	-.078	-.072	-.064
Non-qualified	.874	.126	.025	.023	.011	.965	.142	-.095	-.093	-.087
OWNERSHIP										
Blue Cross/Blue Shield	.879	.118	.020	.018	.017	.987	.134	-.111	-.111	-.093
Other Insurer	*	*	*	*	*	.968	.144	-.083	-.061	-.083
National HMO Chain	.873	.108	.030	.025	.028	.987	.156	-.133	-.131	-.103
Independent	.880	.124	.022	.018	.020	.912	.136	-.032	-.024	-.022
Provider-sponsored	.881	.116	.022	.019	.014	.926	.148	-.056	-.055	-.062
Other	*	*	*	*	*	*	*	*	*	*

Notes:
1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.
*Data are not shown where cell size is less than 4 plans.
Source: GHAA's Annual HMO Industry Survey

Table 9
Mean Selected Revenues per Member per Month and as a Percent of Total Revenue, by Selected Plan Characteristics, 1988[1,3]

	Revenue Sources per Member per Month						Sources as Percent of Total Revenues				
	Total Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue
All Plans (n = 261)	$78.29	$65.05	$9.89	$.84	$.64	$1.86	85.0%	10.8%	1.0%	.8%	2.4%
(75th percentile)	*84.01*	*71.55*	*9.73*	*.37*	*.83*	*2.17*					
(Median)	*73.68*	*65.65*	*.00*	*.00*	*.08*	*1.24*					
(25th percentile)	*67.23*	*58.70*	*.00*	*.00*	*.00*	*.67*					
MODEL											
Staff	88.36	63.88	18.54	3.16	.62	2.17	73.0	20.1	3.7	.8	2.4
Group	75.23	64.26	6.56	1.71	.57	2.13	86.3	7.9	2.1	.7	2.9
Network	81.76	60.35	17.57	.52	.74	2.57	79.1	16.3	.7	.8	3.0
IPA	75.94	66.52	7.04	.16	.64	1.58	88.7	8.2	.2	.8	2.1
REGION											
New England	86.96	76.64	6.87	1.21	.85	1.39	89.2	7.0	1.3	1.0	1.6
Mid-Atlantic	76.65	64.54	9.25	.48	.58	1.80	86.9	9.7	.7	.7	2.1
South Atlantic	78.99	70.47	5.61	.40	.54	1.96	89.6	6.5	.5	.7	2.7
East Central	75.03	59.69	12.23	.41	.84	1.86	81.0	15.0	.5	1.1	2.5
West Central	76.00	65.07	6.91	1.27	.51	2.24	87.4	7.3	1.7	.7	2.9
Mountain/Pacific	81.90	64.12	14.01	1.56	.49	1.72	82.2	13.3	1.8	.6	2.1
SIZE											
0–19,999	77.18	61.33	12.36	.34	.56	2.58	82.0	13.5	.5	.7	3.3
20,000–49,999	77.77	68.96	5.70	.60	.84	1.68	90.3	5.7	.7	1.1	2.2
50,000–99,999	75.54	63.62	8.95	.90	.60	1.47	85.2	11.0	1.2	.8	1.9
100,000 +	83.63	67.01	12.78	1.78	.54	1.52	82.3	13.3	2.0	.6	1.8
AGE											
1–3	76.75	66.46	7.45	.04	.47	2.34	88.8	7.7	.1	.6	2.8
4–7	75.42	63.08	9.38	.43	.63	1.90	84.9	11.1	.6	.8	2.5
8–15	81.23	65.89	11.83	1.20	.68	1.63	83.6	11.9	1.4	.9	2.1
16 +	81.63	65.52	11.22	2.57	.92	1.41	81.2	13.1	2.9	1.1	1.7
TAX STATUS											
Nonprofit	81.30	61.24	16.17	1.28	.56	2.05	77.6	17.6	1.6	.7	2.5
For-profit	76.16	67.74	5.46	.53	.70	1.73	90.2	6.0	.6	.9	2.3
QUALIFICATION STATUS											
Federally qualified	79.01	65.95	9.75	1.09	.60	1.62	85.5	10.4	1.3	.8	2.1
Non-qualified	77.01	63.49	10.13	.39	.72	2.29	84.1	11.5	.5	.9	2.9
OWNERSHIP											
Blue Cross/Blue Shield	77.34	69.62	4.69	.79	.50	1.74	90.9	5.1	.9	.7	2.4
Other Insurer	78.62	71.02	2.99	1.07	1.33	2.21	91.7	2.9	1.2	1.6	2.7
National HMO Chain	80.62	60.30	17.38	1.51	.45	.98	78.5	17.9	1.8	.5	1.2
Independent	78.71	60.26	14.66	.91	.53	2.36	78.8	16.4	1.1	.7	2.9
Provider-sponsored	75.93	65.40	7.99	.29	.52	1.72	87.3	9.4	.4	.7	2.3
Other	89.69	69.95	16.57	1.18	.99	1.01	80.6	15.3	1.6	1.3	1.3

Table 9 (continued)
Mean Selected Revenues per Member per Month and as a Percent of Total Revenue, by Selected Plan Characteristics, 1988[1,3]

	Revenue Sources per Member per Month						Sources as Percent of Total Revenues				
	Total Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue
All Plans > 3 Years (n = 198)	$78.77	$64.61	$10.66	$1.09	$.70	$1.71	83.8%	11.8%	1.3%	.9%	2.2%
(75th percentile)	*86.04*	*71.63*	*12.09*	*1.12*	*.89*	*2.17*					
(Median)	*74.73*	*65.43*	*1.57*	*.00*	*.15*	*1.21*					
(25th percentile)	*67.90*	*58.45*	*.00*	*.00*	*.00*	*.69*					
MODEL											
Staff	85.78	62.77	17.06	3.34	.66	1.95	74.5	18.4	3.9	.8	2.3
Group	76.22	64.54	7.58	1.98	.59	1.53	85.7	9.2	2.4	.8	2.0
Network	79.22	57.24	18.57	.65	.63	2.13	78.0	17.5	.8	.8	2.9
IPA	77.19	67.02	7.61	.21	.76	1.59	87.6	9.1	.3	1.0	2.1
REGION											
New England	91.04	78.29	9.02	1.51	.83	1.39	86.9	9.1	1.6	.9	1.5
Mid-Atlantic	73.47	63.37	8.00	.61	.49	.99	87.9	9.0	.8	.7	1.4
South Atlantic	78.11	67.56	7.67	.55	.57	1.75	87.4	8.9	.7	.7	2.3
East Central	75.30	62.10	9.93	.55	1.04	1.69	82.6	13.1	.7	1.4	2.3
West Central	78.49	63.95	9.75	1.78	.45	2.56	83.5	10.3	2.4	.6	3.2
Mountain/Pacific	82.61	61.79	16.68	1.86	.58	1.69	79.1	15.8	2.1	.7	2.3
SIZE											
0–19,999	73.73	55.11	14.65	.77	.68	2.52	77.6	16.7	1.0	.9	3.7
20,000–49,999	80.32	69.39	7.41	.76	98	1.79	88.1	7.4	.9	1.2	2.3
50,000–99,999	75.72	63.41	9.40	.94	60	1.36	84.7	11.5	1.2	.8	1.8
100,000 +	83.63	67.01	12.78	1.78	.54	1.52	82.3	13.3	2.0	.6	1.8
AGE											
4–7	75.42	63.08	9.38	43	.63	1.90	84.9	11.1	.6	.8	2.5
8–15	81.23	65.89	11.83	1.20	.68	1.63	83.6	11.9	1.4	.9	2.1
16 +	81.63	65.52	11.22	2.57	.92	1.41	81.2	13.1	2.9	1.1	1.7
TAX STATUS											
Nonprofit	80.31	63.21	13.31	1.44	.60	1.75	80.4	14.8	1.8	.8	2.3
For-profit	77.33	65.92	8.18	.77	.79	1.68	86.9	9.0	.9	1.0	2.2
QUALIFICATION STATUS											
Federally qualified	79.92	65.03	11.31	1.26	.61	1.71	83.5	12.1	1.5	.8	2.2
Non-qualified	75.80	63.52	8.98	.66	.91	1.72	84.5	11.0	.9	1.2	2.5
OWNERSHIP											
Blue Cross/Blue Shield	79.97	70.92	5.96	1.00	.60	1.48	89.6	6.5	1.2	.8	1.9
Other Insurer	79.30	68.22	5.14	1.81	1.65	2.47	87.9	4.9	2.0	2.1	3.1
National HMO Chain	81.87	61.97	16.68	1.73	.52	.97	79.0	17.1	2.1	.6	1.2
Independent	77.08	60.61	12.83	1.05	.58	2.01	80.4	14.8	1.3	.8	2.7
Provider-sponsored	76.06	63.92	9.51	.42	.53	1.68	85.2	11.4	.6	.7	2.3
Other	89.69	69.95	16.57	1.18	.99	1.01	80.6	15.3	1.6	1.3	1.3

Table 9 (continued)
Mean Selected Revenues per Member per Month and as a Percent of Total Revenue, by Selected Plan Characteristics, 1988[1,3]

	Revenue Sources per Member per Month						Sources as Percent of Total Revenues				
	Total Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue
Profitable Plans > 3 Years[4] (n = 93)	$80.25	$60.84	$15.76	$1.05	$.71	$1.90	78.3%	17.0%	1.2%	.9%	2.5%
MODEL											
Staff	89.12	59.13	24.15	2.96	.60	2.28	67.5	25.6	3.4	.7	2.8
Group	75.38	62.33	9.34	1.50	.39	1.83	84.2	11.0	1.9	.5	2.4
Network	83.20	53.07	26.34	.91	.69	2.18	70.7	24.3	1.1	.8	3.1
IPA	77.26	63.57	10.94	.23	.84	1.68	83.3	13.1	.3	1.1	2.2
REGION											
New England	90.94	78.06	9.52	.86	.88	1.63	86.5	9.8	.9	1.0	1.8
Mid Atlantic	67.93	56.02	9.85	.47	.69	.90	86.2	10.8	.7	1.0	1.3
South Atlantic	79.65	57.47	18.89	.53	.60	2.15	73.9	21.7	.6	.8	2.9
East Central	73.85	58.51	12.09	.47	.90	1.88	79.3	16.6	.6	1.2	2.6
West Central	82.73	62.09	14.62	2.63	.17	3.22	76.0	16.5	3.4	.2	3.9
Mountain/Pacific	92.47	60.65	27.61	1.71	.73	1.77	71.7	23.3	1.8	.8	2.4
SIZE											
0–19,999	75.87	48.81	22.09	1.10	.73	3.15	66.7	26.3	1.4	1.0	4.7
20,000–49,999	82.73	62.04	17.43	.54	.94	1.77	79.2	16.7	.6	1.2	2.2
50,000–99,999	75.71	60.79	12.09	.99	.63	1.24	81.2	15.1	1.3	.8	1.6
100,000 +	85.21	67.35	14.07	1.38	.61	1.80	82.3	13.3	1.5	.8	2.2
AGE											
4–7	74.18	55.32	15.68	.53	.66	1.99	76.5	19.2	.7	.8	2.7
8–15	86.35	66.00	16.47	1.06	.84	1.98	80.3	14.8	1.2	1.1	2.6
16 +	79.04	60.71	14.16	2.21	.50	1.46	77.6	17.4	2.6	.6	1.8
TAX STATUS											
Nonprofit	82.29	59.51	18.87	1.27	.50	2.14	74.2	20.8	1.5	.6	2.9
For-profit	78.26	62.15	12.71	.83	.91	1.66	82.4	13.4	1.0	1.2	2.2
QUALIFICATION STATUS											
Federally qualified	83.49	63.91	15.93	1.13	.74	1.79	79.7	15.9	1.3	.9	2.2
Non-qualified	72.33	53.34	15.34	.85	.63	2.17	75.1	19.7	1.1	.8	3.3
OWNERSHIP											
Blue Cross/Blue Shield	75.18	66.97	3.78	1.69	.95	1.79	89.3	4.8	2.2	1.1	2.4
Other Insurer	76.38	66.15	4.42	2.49	1.99	1.33	88.0	5.0	2.6	2.6	1.7
National HMO Chain	91.00	58.15	30.25	.85	.64	1.10	69.6	27.6	.9	.7	1.2
Independent	80.13	58.94	17.16	1.06	.59	2.38	75.4	19.4	1.2	.8	3.2
Provider-sponsored	75.82	60.49	12.52	.56	.50	1.74	81.3	14.9	.7	.6	2.4
Other	*	*	*	*	*	*	*	*	*	*	*

Table 9 (continued)
Mean Selected Revenues per Member per Month and as a Percent of Total Revenue, by Selected Plan Characteristics, 1988[1,3]

	Revenue Sources per Member per Month						Sources as Percent of Total Revenues				
	Total Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue
Unprofitable Plans > 3 Years (n = 104)	$77.41	$67.80	$6.21	$1.15	$.70	1.56	88.5%	7.2%	1.4%	.9%	2.0%
MODEL											
Staff	81.95	65.80	9.69	4.02	.77	1.68	81.3	11.0	4.8	.9	2.0
Group	76.79	66.06	6.38	2.30	.73	1.32	86.6	7.9	2.8	.9	1.8
Network	73.79	62.94	7.97	.30	.53	2.05	87.9	8.2	.5	.8	2.7
IPA	77.14	69.78	4.95	.20	.70	1.51	91.0	5.8	.3	.9	2.0
REGION											
New England	92.54	77.87	9.77	2.74	.90	1.26	85.3	9.6	2.8	1.0	1.3
Mid Atlantic	79.00	70.72	6.16	.74	.30	1.08	89.7	7.3	1.0	.4	1.6
South Atlantic	77.34	72.60	2.06	.56	.56	1.56	94.1	2.5	.7	.7	2.0
East Central	77.03	66.40	7.33	.64	1.22	1.45	86.9	9.0	.8	1.5	1.9
West Central	75.50	65.27	6.31	1.19	.64	2.09	88.7	6.0	1.6	.9	2.7
Mountain/Pacific	74.47	62.74	7.65	1.99	.46	1.63	85.3	9.6	2.4	.6	2.1
SIZE											
0-19,999	70.31	61.22	6.13	.40	.65	1.90	90.1	5.7	.6	1.0	2.7
20,000-49,999	78.97	73.49	1.81	.88	1.00	1.79	93.0	2.3	1.1	1.3	2.3
50,000-99,999	75.69	65.54	7.22	.91	.57	1.45	87.5	8.6	1.2	.8	1.9
100,000 +	81.64	66.58	11.15	2.29	.45	1.17	82.3	13.2	2.6	.5	1.4
AGE											
4-7	76.36	68.95	4.62	.35	.61	1.83	91.2	5.0	.5	.8	2.4
8-15	75.99	65.77	7.08	1.34	.52	1.27	87.0	8.9	1.7	.7	1.7
16 +	81.12	69.23	8.98	3.09	1.39	1.44	83.6	9.7	3.5	1.6	1.6
TAX STATUS											
Nonprofit	78.41	66.29	8.36	1.63	.71	1.41	85.9	9.5	2.0	.9	1.8
For-profit	76.53	69.14	4.30	.71	.68	1.69	90.8	5.2	.9	.9	2.2
QUALIFICATION STATUS											
Federally qualified	76.86	65.98	7.36	1.38	.51	1.64	86.8	8.8	1.7	.6	2.1
Non-qualified	78.99	72.98	2.96	.49	1.24	1.33	93.3	2.7	.7	1.7	1.7
OWNERSHIP											
Blue Cross/Blue Shield	81.51	72.20	6.66	.78	.49	1.38	89.7	7.1	.9	.6	1.7
Other Insurer	80.16	68.83	5.36	1.61	1.55	2.81	87.8	4.9	1.9	2.0	3.5
National HMO Chain	75.96	64.44	7.90	2.30	.44	.89	85.1	10.4	2.8	.5	1.2
Independent	71.91	63.45	5.50	1.03	.56	1.37	88.8	7.1	1.1	.7	2.0
Provider sponsored	76.46	69.49	4.62	.19	.58	1.59	91.4	5.5	.2	.8	2.1
Other	*	*	*	*	*	*	*	*	*	*	*

Notes:

1. Excludes plans with 1,000 enrollees or less and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.
3. Some respondents may have aggregated revenue sources into "other" or "premiums."
4. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

*Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 10
Mean Summary Expenses per Member per Month and as a Percent of Total Expenses, by Selected Plan Characteristics, 1988[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Expenses		
	Total	Hospital	Medical	Administrative	Hospital	Medical	Administrative
All plans (n = 243)	$82.67	$27.68	$43.62	$11.35	33.7%	52.8%	13.5%
(75th percentile	*91.17*	*31.58*	*49.07*	*13.93*			
(Median)	*78.48*	*26.42*	*42.64*	*9.84*			
(25th percentile)	*70.66*	*21.30*	*35.45*	*7.48*			
MODEL							
Staff	86.40	24.96	49.38	12.06	29.0	57.5	13.5
Group	82.36	26.98	46.37	9.01	33.0	56.2	10.8
Network	82.54	28.92	41.97	11.65	34.9	51.1	14.0
IPA	81.78	28.31	41.75	11.70	34.8	51.0	14.2
REGION							
New England	92.30	30.92	48.78	12.60	33.6	52.9	13.4
Mid-Atlantic	77.50	24.00	42.04	11.46	31.3	54.4	14.3
South Atlantic	85.66	28.84	43.32	13.38	34.0	50.6	15.4
East Central	78.75	28.89	40.41	9.45	36.5	51.4	12.1
West Central	82.42	25.51	44.94	11.99	31.5	54.2	14.4
Mountain/Pacific	86.73	27.82	47.27	11.65	32.2	54.7	13.1
SIZE							
0-19,999	80.67	26.98	40.44	13.27	33.7	50.2	16.1
20,000-49,999	85.96	29.26	44.16	12.45	34.5	51.2	14.3
50,000-99,999	78.87	26.06	43.52	9.29	33.1	55.2	11.7
100,000 +	85.60	28.48	47.43	9.69	33.2	55.6	11.2
AGE							
1-3	82.93	27.04	40.69	15.22	32.7	49.3	18.1
4-7	80.36	28.18	41.46	10.72	35.5	51.3	13.2
8-15	82.84	27.03	45.95	9.78	32.6	55.7	11.6
16 +	87.77	28.98	48.32	10.46	33.4	55.1	11.6
TAX STATUS							
Nonprofit	84.05	28.02	45.34	10.69	33.4	54.1	12.4
For-profit	81.60	27.42	42.29	11.86	33.8	51.7	14.4
QUALIFICATION STATUS							
Federally qualified	83.29	27.48	44.52	11.25	33.1	53.6	13.3
Non-qualified	81.58	28.02	42.03	11.54	34.7	51.4	13.9
OWNERSHIP							
Blue Cross/Blue Shield	85.33	28.89	44.96	11.47	34.0	52.7	13.3
Other Insurer	86.57	28.27	44.96	13.33	33.2	51.7	15.1
National HMO Chain	87.15	30.73	44.27	11.96	35.4	50.7	13.7
Independent	81.06	25.67	44.26	11.13	32.1	54.5	13.4
Provider-sponsored	77.82	27.56	39.98	10.30	35.2	51.7	13.1
Other	80.70	23.95	48.91	7.85	29.2	61.0	9.8

Table 10 (continued)
Mean Summary Expenses per Member per Month as a Percent of Total Expenses, by Selected Plan Characteristics, 1988[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Expenses		
	Total	Hospital	Medical	Administrative	Hospital	Medical	Administrative
Plans > 3 Years (n = 191)	$82.60	$27.85	$44.42	$10.30	33.9%	53.7%	12.3%
(75th percentile)	*91.64*	*31.75*	*50.67*	*12.16*			
(Median)	*78.22*	*26.92*	*43.37*	*8.96*			
(25th percentile)	*70.45*	*21.70*	*35.98*	*7.04*			
MODEL							
Staff	84.38	24.01	49.14	11.23	28.4	58.6	13.0
Group	81.62	26.54	46.65	8.43	33.0	56.8	10.2
Network	83.38	29.60	42.79	10.99	35.3	51.6	13.1
IPA	82.08	29.19	42.44	10.40	35.9	51.5	12.5
REGION							
New England	94.20	31.29	50.37	12.53	33.3	53.7	13.0
Mid-Atlantic	77.47	24.18	43.22	10.07	31.5	55.8	12.6
South Atlantic	86.33	28.30	44.38	13.46	33.5	51.1	15.2
East Central	78.35	28.37	41.60	8.39	36.1	53.0	10.9
West Central	80.66	26.51	44.60	9.58	33.2	54.9	11.9
Mountain/Pacific	86.47	28.92	47.02	10.52	33.6	54.4	12.0
SIZE							
0-19,999	75.63	26.15	39.40	10.08	35.1	51.7	13.2
20,000-49,999	88.32	30.04	45.80	12.37	34.5	51.7	13.7
50,000-99,999	78.82	26.27	43.43	9.14	33.4	55.1	11.5
100,000 +	85.91	28.62	47.59	9.70	33.3	55.6	11.1
AGE							
4-7	80.36	28.18	41.46	10.72	35.5	51.3	13.2
8-15	82.84	27.03	45.95	9.78	32.6	55.7	11.6
16 +	87.77	28.98	48.32	10.46	33.4	55.1	11.6
TAX STATUS							
Nonprofit	83.27	27.31	46.22	9.73	32.9	55.6	11.5
For-profit	81.96	28.37	42.71	10.84	34.9	52.0	13.1
QUALIFICATION STATUS							
Federally qualified	83.36	27.69	45.19	10.44	33.3	54.3	12.4
Non-qualified	80.62	28.26	42.42	9.93	35.7	52.1	12.2
OWNERSHIP							
Blue Cross/Blue Shield	86.91	30.11	46.30	10.50	34.8	53.3	11.9
Other Insurer	88.35	29.92	46.90	11.53	34.7	52.7	12.6
National HMO Chain	86.87	30.66	45.04	10.96	35.5	51.7	12.6
Independent	79.86	25.20	44.34	10.31	31.9	55.4	12.7
Provider-sponsored	76.52	27.45	39.88	9.21	35.8	52.3	12.0
Other	80.70	23.95	48.91	7.85	29.2	61.0	9.8

Table 10 (continued)
Mean Summary Expenses per Member per Month as a Percent of Total Expenses, by Selected Plan Characteristics, 1988[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Expenses		
	Total	**Hospital**	**Medical**	**Administrative**	**Hospital**	**Medical**	**Administrative**
Profitable Plans > 3 Years[5] (n = 86)	$79.30	$27.09	$42.78	$9.43	34.2%	54.1%	11.8%
MODEL							
Staff	82.68	23.08	49.07	10.53	28.3	59.3	12.4
Group	77.15	26.10	44.62	6.43	34.5	57.1	8.4
Network	85.70	31.98	43.00	10.72	36.5	51.3	12.2
IPA	76.07	27.39	39.26	9.42	35.8	51.7	12.4
REGION							
New England	91.17	30.25	50.30	10.61	33.3	55.0	11.7
Mid-Atlantic	66.30	20.55	37.03	8.71	30.7	56.5	12.8
South Atlantic	78.66	27.32	40.16	11.18	35.1	50.8	14.2
East Central	73.60	25.37	39.78	8.44	34.8	53.7	11.5
West Central	78.98	28.18	42.95	7.84	35.6	54.5	9.9
Mountain/Pacific	94.38	32.77	50.28	11.33	34.6	53.9	11.5
SIZE							
0-19,999	71.55	24.06	38.15	9.33	34.5	52.9	12.6
20,000-49,999	85.91	31.06	43.48	11.37	35.7	51.0	13.3
50,000-99,999	74.79	25.49	41.08	8.23	34.3	54.7	11.0
100,000 +	84.19	27.99	46.82	9.38	32.8	56.1	11.1
AGE							
4-7	72.37	26.71	36.36	9.30	36.6	50.6	12.7
8-15	83.75	27.18	47.24	9.32	32.2	56.8	10.9
16 +	83.31	27.69	45.68	9.94	33.5	54.7	11.8
TAX STATUS							
Nonprofit	81.96	26.76	45.75	9.45	32.8	55.9	11.3
For-profit	76.51	27.44	39.66	9.41	35.6	52.1	12.3
QUALIFICATION STATUS							
Federally qualified	82.80	27.89	45.09	9.82	33.5	54.8	11.8
Non-qualified	70.74	25.14	37.13	8.47	35.8	52.3	11.9
OWNERSHIP							
Blue Cross/Blue Shield	73.65	25.29	39.83	8.53	34.6	53.6	11.8
Other Insurer	73.84	22.97	43.17	7.71	31.2	58.2	10.6
National HMO Chain	87.96	37.88	40.63	9.45	42.4	46.8	10.7
Independent	80.96	25.30	45.18	10.48	31.5	55.8	12.8
Provider-sponsored	75.85	28.23	39.10	8.53	37.2	51.8	11.0
Other	*	*	*	*	*	*	*

Table 10 (continued)
Mean Summary Expenses per Member per Month as a Percent of Total Expenses, by Selected Plan Characteristics, 1988[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Expenses		
	Total	Hospital	Medical	Administrative	Hospital	Medical	Administrative
Unprofitable Plans > 3 Years (n = 104)	$85.37	$28.48	$45.79	$11.05	33.7%	53.4%	12.8%
MODEL							
Staff	86.67	24.85	49.55	12.28	28.2	58.0	13.8
Group	84.69	26.84	48.04	9.80	32.0	56.7	11.4
Network	79.91	26.04	42.48	11.39	33.5	52.0	14.5
IPA	86.16	30.41	44.60	11.07	35.9	51.4	12.6
REGION							
New England	100.89	33.30	51.55	16.04	33.1	51.5	15.5
Mid-Atlantic	87.05	27.29	48.53	11.23	32.2	55.3	12.5
South Atlantic	89.78	28.74	46.29	14.48	32.8	51.2	15.6
East Central	83.84	31.83	43.69	8.33	37.5	52.3	10.1
West Central	81.75	25.42	45.67	10.70	31.7	55.2	13.2
Mountain/Pacific	80.44	26.00	44.53	9.91	32.9	54.8	12.3
SIZE							
0-19,999	79.81	28.28	40.45	11.08	35.7	50.1	14.2
20,000-49,999	89.56	29.51	46.99	12.89	33.8	52.1	14.0
50,000-99,999	81.97	26.88	45.26	9.85	32.7	55.4	11.9
100,000 +	87.94	29.37	48.51	10.07	33.8	55.1	11.2
AGE							
4-7	85.74	29.18	44.90	11.68	34.7	51.8	13.6
8-15	81.99	26.89	44.76	10.21	32.8	54.8	12.3
16 +	93.15	30.46	51.43	11.26	33.1	55.4	11.5
TAX STATUS							
Nonprofit	84.57	27.80	46.71	10.06	33.0	55.3	11.7
For-profit	86.05	29.06	45.00	11.91	34.4	51.9	13.7
QUALIFICATION STATUS							
Federally qualified	83.80	27.54	45.27	10.93	33.1	54.0	12.8
Non-qualified	89.85	31.18	47.27	11.40	35.6	51.8	12.6
OWNERSHIP							
Blue Cross/Blue Shield	91.33	31.71	48.46	11.16	34.9	53.1	12.0
Other Insurer	92.38	31.86	47.93	12.59	35.6	51.2	13.2
National HMO Chain	86.22	26.41	47.64	11.84	31.4	54.5	13.7
Independent	78.06	25.05	42.97	10.04	32.6	54.7	12.6
Provider-sponsored	77.45	26.36	40.99	10.15	33.7	53.1	13.2
Other	*	*	*	*	*	*	*

Notes:
1. Excludes plans with 1,000 Medicare enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.
3. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.
*Data are not shown where cell size is less than 4 plans.
Source: GHAA's Annual HMO Industry Survey

Table 11
Mean Selected Healthcare Expenses per Member per Month and as a Percent of Total Healthcare Expenses, by Selected Plan Characteristics, 1988[1,2,3]

	Healthcare Expenses per Member per Month								Expenses as Percent of Healthcare Expenses						
Selected Plan Characteristics	Total	In-patient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other	In-patient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other
All Plans (n = 240)	$69.49	$23.97	$26.32	$4.44	$4.13	$2.65	$.75	6.51	34.3%	38.3%	6.3%	5.8%	3.9%	1.1%	9.4%
(Median)	*67.56*	*23.00*	*25.32*	*1.63*	*0.00*	*1.54*	.52	5.97							
MODEL															
Staff	72.27	22.01	17.26	8.91	9.17	2.56	.80	9.06	30.6	24.3	12.2	12.5	3.5	1.1	12.5
Group	72.00	23.02	26.79	5.68	3.90	2.93	.57	7.32	32.2	38.5	7.4	5.1	4.1	.8	9.6
Network	66.90	25.30	27.69	2.97	2.54	2.75	.87	4.77	37.0	40.7	4.7	4.0	4.2	1.3	7.8
IPA	68.69	24.43	28.19	3.30	3.30	2.59	.76	6.02	35.3	41.2	4.8	4.6	3.9	1.1	8.9
REGION															
New England	78.50	28.16	28.53	5.04	4.70	2.67	1.13	7.29	35.9	36.7	6.1	5.7	3.5	1.5	9.4
Mid-Atlantic	61.75	20.46	23.92	3.21	6.05	2.04	.46	5.07	33.2	39.1	4.9	9.2	3.4	.8	8.6
South Atlantic	71.02	26.55	25.58	3.81	3.21	2.17	.68	8.11	37.6	36.4	5.1	3.9	3.0	1.0	11.7
East Central	68.80	24.18	25.61	4.82	3.34	3.70	.71	5.84	35.0	37.8	6.9	4.7	5.4	1.0	8.3
West Central	69.27	21.86	27.18	5.05	5.68	2.06	.93	5.81	31.6	39.0	7.2	8.2	3.1	1.3	8.5
Mountain/Pacific	70.67	23.54	28.13	4.40	3.42	2.28	.74	7.36	32.6	40.2	6.5	4.9	3.3	1.1	10.5
SIZE															
0–19,999	64.08	22.19	23.90	4.19	4.10	2.53	.96	5.97	34.7	37.2	6.6	6.3	3.9	1.5	9.5
20,000–49,999	69.87	24.07	28.26	3.54	3.14	2.59	.89	6.67	34.1	40.9	4.9	4.5	3.8	1.2	9.7
50,000–99,999	70.89	24.57	26.63	5.28	5.23	2.14	.48	5.70	34.5	38.0	7.3	6.9	3.2	.7	8.3
100,000 +	75.68	25.87	27.27	4.91	4.10	3.54	.58	8.10	33.9	37.0	6.2	5.2	4.9	.8	10.4
AGE															
1–3	67.13	23.21	26.69	3.83	4.65	1.55	1.02	6.16	34.4	39.7	6.0	6.6	2.3	1.6	9.4
4–7	66.14	24.16	26.36	3.40	2.29	2.56	.72	6.31	36.1	40.1	5.0	3.5	4.0	1.1	9.7
8–15	72.50	23.71	27.77	4.92	4.38	3.35	.60	6.70	32.5	38.5	6.7	6.0	4.8	.8	9.3
16 +	75.44	25.52	22.00	7.12	7.43	3.24	.69	7.21	34.0	30.3	9.0	9.6	4.3	.9	9.1
TAX STATUS															
Nonprofit	71.13	24.47	25.11	5.06	4.76	2.93	.65	7.01	34.3	35.3	7.0	6.8	4.3	.9	9.9
For-profit	68.30	23.61	27.20	3.98	3.67	2.45	.82	6.14	34.4	40.4	5.8	5.0	3.6	1.2	9.1
QUALIFICATION STATUS															
Federally qualified	71.85	24.20	27.10	4.71	4.51	2.76	.68	6.90	33.4	38.4	6.3	6.1	3.9	.9	9.6
Non-qualified	65.20	23.55	24.92	3.94	3.44	2.46	.88	5.80	36.0	38.0	6.3	5.2	3.8	1.4	9.0
OWNERSHIP															
Blue Cross/Blue Shield	70.66	25.05	25.73	3.52	5.11	2.47	.76	7.34	35.5	37.2	4.7	7.0	3.4	1.1	10.3
Other Insurer	70.73	24.15	25.31	5.17	6.23	2.34	1.20	5.61	34.1	36.2	7.1	8.5	3.5	1.7	8.1
National HMO Chain	74.29	27.47	25.00	5.89	3.43	3.60	.44	7.05	36.9	34.0	7.8	4.7	4.9	.6	9.2
Independent	67.61	21.99	25.58	5.53	4.20	2.48	.57	6.27	32.8	38.0	8.0	6.1	3.7	.9	9.2
Provider-sponsored	67.59	23.78	28.97	2.71	2.15	2.56	.81	6.53	34.6	42.9	4.3	2.9	3.9	1.2	10.1
Other	70.14	21.12	24.69	4.80	8.14	4.12	1.12	4.96	29.2	35.2	7.0	12.5	5.8	1.6	7.1

Table 11 (continued)
Mean Selected Healthcare Expenses per Member per Month and as a Percent of Total Healthcare Expenses, by Selected Plan Characteristics, 1988[1,2,3]

	Healthcare Expenses per Member per Month								Expenses as Percent of Healthcare Expenses						
Selected Plan Characteristics	Total	In-patient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other	In-patient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other
Plans > 3 Years (n = 184)	$70.21	$24.20	$26.21	$4.62	$3.97	$2.99	$.67	$6.61	34.3%	37.8%	6.4%	5.5%	4.4%	.9%	9.4%
MODEL															
Staff	72.77	21.70	17.55	9.06	9.33	2.50	.82	9.23	29.8	24.6	12.3	12.6	3.4	1.1	12.7
Group	73.19	23.25	26.32	6.18	3.64	3.29	.50	7.98	32.0	36.9	8.0	4.9	4.6	.7	10.3
Network	67.49	25.51	28.24	3.27	2.68	3.06	.81	3.70	36.7	41.0	5.2	4.6	4.6	1.2	6.3
IPA	68.96	25.10	28.79	2.83	2.48	3.04	.63	5.92	36.2	42.1	4.0	3.4	4.6	.9	8.7
REGION															
New England	81.66	29.01	28.51	6.24	5.95	2.28	1.00	7.44	35.5	35.1	7.5	7.3	2.8	1.2	9.1
Mid Atlantic	62.32	20.01	24.46	3.28	5.36	2.38	.39	5.79	32.1	39.7	5.0	7.8	3.9	.7	9.8
South Atlantic	70.46	25.97	24.71	4.51	3.01	2.33	.61	8.05	37.4	35.6	5.9	4.0	3.2	.8	11.3
East Central	69.14	23.23	26.55	5.08	2.81	4.15	.60	5.96	33.4	39.4	7.1	3.8	6.1	.9	8.4
West Central	68.88	23.81	23.91	5.01	6.58	2.58	.91	5.06	34.4	34.6	7.0	9.9	3.9	1.3	7.5
Mountain/Pacific	73.24	25.44	28.82	3.90	2.86	2.69	.67	7.87	34.3	39.4	5.5	3.9	3.8	.9	10.9
SIZE															
0-19,999	61.91	20.67	22.30	4.57	3.80	3.66	.85	5.53	33.9	35.9	7.3	5.9	5.8	1.4	9.2
20,000-49,999	70.80	24.89	28.16	3.53	2.78	2.88	.88	6.80	34.7	40.3	4.8	3.9	4.1	1.2	9.8
50,000-99,999	69.75	24.20	26.00	5.28	4.92	2.18	.48	5.81	34.6	37.8	7.3	6.8	3.2	.7	8.4
100,000 +	76.00	25.99	27.23	4.98	4.18	3.60	.53	8.14	33.9	36.8	6.3	5.3	4.9	.7	10.4
AGE															
4-7	66.14	24.16	26.36	3.40	2.29	2.56	.72	6.31	36.1	40.1	5.0	3.5	4.0	1.1	9.7
8-15	72.50	23.71	27.77	4.92	4.38	3.35	.60	6.70	32.5	38.5	6.7	6.0	4.8	.8	9.3
16 +	75.44	25.52	22.00	7.12	7.43	3.24	.69	7.21	34.0	30.3	9.0	9.6	4.3	.9	9.1
TAX STATUS															
Nonprofit	72.05	24.11	25.70	5.43	4.47	3.02	.61	7.44	33.2	35.8	7.4	6.2	4.4	.9	10.4
For-profit	68.45	24.29	26.71	3.85	3.50	2.96	.72	5.82	35.4	39.8	5.3	4.9	4.3	1.0	8.5
QUALIFICATION STATUS															
Federally qualified	72.31	24.56	26.70	4.70	4.50	2.87	.64	7.19	33.8	37.6	6.2	6.1	4.1	.9	10.0
Non-qualified	64.27	23.19	24.83	4.38	2.48	3.32	.73	4.99	35.9	38.6	6.9	3.8	5.2	1.1	7.9
OWNERSHIP															
Blue Cross/Blue Shield	73.44	26.37	25.41	4.38	4.77	3.17	.68	7.77	35.7	35.3	5.7	6.1	4.4	.9	10.7
Other Insurer	72.93	25.46	25.09	3.72	6.68	2.99	1.20	6.65	34.9	34.9	4.4	9.0	4.5	1.6	9.3
National HMO Chain	74.90	27.41	24.53	6.27	3.71	3.64	.40	7.31	36.5	33.1	8.3	5.1	4.9	.5	9.5
Independent	67.80	22.15	25.27	5.81	4.05	2.53	.56	6.35	32.9	37.5	8.4	5.9	3.8	.9	9.3
Provider-sponsored	66.58	23.14	30.40	2.26	1.28	2.99	.65	5.76	34.3	45.8	3.4	1.9	4.6	1.0	8.9
Other	70.14	21.12	24.69	4.80	8.14	4.12	1.12	4.96	29.2	35.2	7.0	12.5	5.8	1.6	7.1

Table 11 (continued)
Mean Selected Healthcare Expenses per Member per Month and as a Percent of Total Healthcare Expenses, by Selected Plan Characteristics, 1988[1,2,3]

	Healthcare Expenses per Member per Month								Expenses as Percent of Healthcare Expenses						
Selected Plan Characteristics	Total	In-patient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other	In-patient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other
Profitable Plans > 3 Years[4] (n = 86)	$68.70	$23.57	$27.52	$4.35	$3.19	$2.80	$.61	$5.94	34.1%	40.1%	6.3%	4.8%	4.1%	.9%	8.8%
MODEL															
Staff	71.31	20.87	18.21	9.47	6.41	2.54	.60	10.99	29.6	26.1	12.6	9.0	3.5	.9	15.4
Group	70.72	22.67	29.33	4.28	3.19	3.44	.66	5.99	32.4	41.9	5.6	4.5	5.2	1.0	8.0
Network	71.46	27.81	29.02	3.52	3.25	3.07	.73	3.83	37.6	38.8	5.9	5.6	4.2	1.1	6.5
IPA	66.09	23.52	30.22	2.57	1.88	2.61	.56	4.59	35.3	45.7	4.0	2.9	4.0	.8	7.1
REGION															
New England	80.56	28.41	32.47	7.20	2.33	1.84	.89	6.48	35.2	39.8	8.9	2.9	2.5	.0	8.5
Mid-Atlantic	57.90	18.61	23.13	3.91	3.32	1.73	.44	6.23	31.7	39.9	6.1	6.0	3.1	.8	11.5
South Atlantic	66.36	24.15	24.82	2.75	1.87	3.68	.38	7.88	37.4	37.7	3.7	2.9	5.3	.6	11.3
East Central	64.85	20.95	25.91	4.70	2.84	3.61	.47	5.70	32.6	41.0	6.9	4.2	5.4	.7	8.2
West Central	71.14	26.20	24.82	4.17	8.13	1.98	1.13	3.94	36.7	34.2	6.0	12.0	2.8	1.6	5.5
Mountain/Pacific	78.58	28.08	35.30	3.53	1.47	2.55	.63	6.23	34.6	44.5	5.3	1.9	3.2	.9	8.8
SIZE															
0–19,999	61.51	19.35	23.23	5.98	2.94	3.63	.70	4.95	32.3	37.8	9.2	4.4	5.8	1.2	8.3
20,000–49,999	69.96	24.29	30.50	2.18	2.79	2.41	.72	6.80	33.7	43.8	3.2	4.7	3.1	1.1	10.0
50,000–99,999	66.57	23.42	25.00	5.09	4.12	2.07	.43	5.63	35.3	37.6	7.4	6.2	3.3	.6	8.4
100,000 +	75.10	26.22	30.97	3.99	2.75	3.20	.64	6.35	34.5	41.7	5.1	3.7	4.4	.8	8.6
AGE															
4–7	62.41	22.16	26.99	2.48	1.87	2.45	.60	5.69	35.1	43.5	4.0	3.1	3.8	1.0	9.4
8–15	74.94	24.75	29.23	5.83	3.73	3.11	.62	6.59	32.7	38.5	8.0	5.4	4.4	.8	8.8
16 +	68.81	24.14	24.47	5.33	5.22	2.87	.57	4.92	35.3	35.6	7.6	7.7	4.1	.9	7.1
TAX STATUS															
Nonprofit	70.62	23.52	27.59	5.14	3.45	2.89	.69	6.45	33.0	38.5	7.4	5.0	4.4	1.0	9.5
For-profit	66.77	23.61	27.45	3.56	2.94	2.71	.53	5.43	35.2	41.8	5.1	4.6	3.8	.8	8.1
QUALIFICATION STATUS															
Federally qualified	72.00	24.18	28.69	3.96	3.91	2.89	.62	6.79	33.2	39.8	5.3	5.8	4.1	.9	9.7
Non-qualified	60.64	22.07	24.65	5.29	1.46	2.56	.57	3.86	36.3	40.8	8.5	2.3	4.2	1.0	6.5
OWNERSHIP															
Blue Cross/Blue Shield	65.12	22.02	25.70	3.68	2.79	3.27	.81	6.50	34.7	39.7	5.4	4.2	4.7	1.2	9.6
Other Insurer	66.14	18.72	24.20	1.24	6.92	4.25	.45	9.15	27.9	35.9	1.6	11.0	6.8	.8	14.6
National HMO Chain	78.51	34.59	29.85	3.09	4.10	3.30	.49	2.70	43.9	37.3	4.2	6.3	3.7	.6	3.4
Independent	69.17	22.31	25.48	6.68	3.75	2.34	.62	6.79	32.5	36.9	9.4	5.5	3.5	.9	9.8
Provider-sponsored	66.08	23.08	31.17	1.95	1.13	2.90	.59	5.11	34.2	47.3	3.1	1.7	4.6	.9	8.0
Other	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Table 11 (continued)
Mean Selected Healthcare Expenses per Member per Month and as a Percent of Total Healthcare Expenses, by Selected Plan Characteristics, 1988[1,2,3]

	Healthcare Expenses per Member per Month								Expenses as Percent of Healthcare Expenses						
Selected Plan Characteristics	Total	In-patient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other	In-patient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other
Unprofitable Plans > 3 Years (n = 97)	$71.55	$24.73	$25.04	$4.90	$4.59	$3.19	$ .69	$7.28	34.5%	35.8%	6.5%	6.0%	4.6%	1.0%	10.1%
MODEL															
Staff	74.40	22.23	16.17	9.13	12.31	2.62	.91	7.93	29.5	22.1	12.7	16.2	3.5	1.2	10.7
Group	74.88	23.65	24.25	7.48	3.96	3.19	.39	9.34	31.7	33.6	9.6	5.2	4.2	.5	11.8
Network	61.31	21.93	27.03	2.89	1.79	3.05	.93	3.49	35.4	44.5	4.2	3.1	5.1	1.4	6.0
IPA	71.23	26.35	27.66	3.03	2.95	3.39	.69	6.98	36.9	39.2	3.9	3.8	5.1	1.0	10.0
REGION															
New England	84.85	30.06	23.27	5.81	9.91	3.24	.79	9.97	35.4	28.0	6.7	11.7	3.7	1.0	11.5
Mid-Atlantic	66.75	21.40	25.79	2.66	7.41	3.02	.34	5.35	32.5	39.5	3.8	9.6	4.7	.5	8.1
South Atlantic	72.39	26.83	24.65	5.35	3.55	1.69	.72	8.13	37.5	34.6	7.0	4.5	2.2	1.0	11.4
East Central	74.46	26.07	27.34	5.54	2.77	4.82	.77	6.29	34.4	37.3	7.3	3.3	6.9	1.0	8.6
West Central	67.22	22.06	23.24	5.63	5.44	3.02	.75	5.89	32.8	35.0	7.7	8.3	4.6	1.1	8.9
Mountain/Pacific	69.23	23.47	23.96	4.18	3.91	2.80	.70	9.09	34.0	35.6	5.8	5.4	4.3	1.0	12.5
SIZE															
0–19,999	61.74	21.86	20.69	3.02	4.37	3.97	.86	6.68	35.5	33.2	5.1	7.1	6.2	1.4	10.9
20,000–49,999	71.31	25.24	26.75	4.33	2.77	3.16	.98	6.79	35.3	38.1	5.7	3.4	4.8	1.3	9.7
50,000–99,999	72.32	24.83	26.80	5.43	5.57	2.26	.52	5.95	34.1	37.9	7.2	7.3	3.1	.7	8.4
100,000 +	77.02	25.71	22.99	6.10	5.81	4.05	.42	10.19	33.2	31.2	7.5	7.2	5.6	.5	12.6
AGE															
4–7	69.19	25.80	25.84	4.15	2.64	2.65	.81	6.81	37.0	37.3	5.9	3.9	4.1	1.2	9.9
8–15	70.19	22.73	26.38	4.07	5.00	3.58	.57	6.81	32.3	38.4	5.5	6.6	5.1	.8	9.8
16 +	81.90	26.67	19.28	9.18	9.25	3.79	.62	9.83	32.6	24.6	10.7	10.9	4.9	.7	11.6
TAX STATUS															
Nonprofit	73.40	24.59	23.88	5.79	5.27	3.20	.48	8.53	33.3	33.2	7.6	7.1	4.4	.7	11.6
For-profit	69.87	24.85	26.09	4.09	3.97	3.18	.88	6.15	35.5	38.1	5.5	5.1	4.8	1.2	8.8
QUALIFICATION STATUS															
Federally qualified	72.57	24.87	25.08	5.31	4.98	2.86	.66	7.51	34.2	35.7	6.9	6.4	4.1	.9	10.2
Non-qualified	68.07	24.26	24.88	3.51	3.24	4.33	.80	6.49	35.4	36.0	5.2	4.9	6.6	1.2	9.9
OWNERSHIP															
Blue Cross/Blue Shield	76.57	28.00	25.30	4.64	5.51	3.13	.63	8.24	36.1	33.6	5.9	6.8	4.2	.8	11.2
Other Insurer	75.06	27.57	25.37	4.50	6.61	2.59	1.44	5.87	37.1	34.6	5.3	8.4	3.8	1.9	7.7
National HMO Chain	72.64	22.92	21.20	8.26	3.47	3.85	.35	10.19	31.9	30.5	10.8	4.3	5.7	.5	13.2
Independent	65.55	21.88	24.93	4.37	4.55	2.83	.45	5.62	33.5	38.5	6.6	6.5	4.3	.7	8.4
Provider-sponsored	67.35	23.23	29.21	2.74	1.51	3.13	.72	6.74	34.3	43.5	3.8	2.2	4.7	1.1	10.4
Other	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.
3. Some respondents may have aggregated all noninpatient costs into "physician services" or "other."
4. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

*Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 12
Mean Selected Administrative Expenses per Member per Month and as a Percent of Administrative Expenses, by Selected Plan Characteristics, 1988[1,2,3]

	Administrative Expenses per Member per Month							Expenses as Percent of Administrative Expenses				
	Total	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other	Administrative Expenses as % of Total Expenses[4]	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other
All Plans (n = 193)	$9.04	$3.67	$.27	$.78	$1.31	$2.96	11.7%	40.2%	2.9%	8.7%	14.7%	33.0%
MODEL												
Staff	9.02	3.40	.60	.81	1.48	2.73	10.9	36.3	6.4	9.1	16.8	31.4
Group	6.93	2.60	.14	.54	1.11	2.29	9.0	35.9	2.2	9.2	17.0	32.6
Network	8.89	2.65	.25	.60	1.57	3.82	12.0	30.6	2.8	6.6	16.3	43.7
IPA	9.68	4.25	.23	.88	1.28	3.05	12.7	44.3	2.2	8.9	13.2	31.4
REGION												
New England	10.48	4.45	.33	.90	1.33	3.47	12.2	42.7	2.8	8.8	12.7	32.8
Mid-Atlantic	8.32	2.88	.34	.95	1.46	2.36	12.1	35.9	4.2	10.9	17.1	27.9
South Atlantic	10.84	5.37	.46	.82	1.24	2.94	13.5	49.2	3.8	7.4	11.2	28.3
East Central	8.23	3.37	.16	.67	1.19	2.84	10.8	40.5	1.8	7.7	[illegible]	34.9
West Central	8.63	3.11	.30	.79	1.33	3.11	11.3	35.4	3.7	8.7	16.2	36.0
Mountain/Pacific	9.12	3.43	.21	.76	1.45	3.27	11.7	38.1	2.3	9.7	15.2	34.8
SIZE												
0–19,999	10.14	4.45	.34	.76	1.40	3.20	13.7	43.7	3.2	7.7	13.1	32.3
20,000–49,999	9.66	4.48	.27	.79	1.09	3.03	12.5	46.2	2.7	7.8	10.9	32.3
50,000–99,999	8.14	3.06	.30	.71	1.31	2.60	10.7	37.7	3.4	8.2	17.4	31.3
100,000 +	8.36	2.75	.19	.87	1.48	3.08	10.2	33.4	2.1	11.1	17.3	36.1
AGE												
1–3	10.43	4.83	.20	.80	1.25	3.35	13.8	46.0	1.7	7.4	12.3	32.6
4–7	9.19	3.90	.26	.75	1.30	2.97	12.3	41.9	2.7	7.9	14.5	33.0
8–15	8.71	3.26	.30	.80	1.38	2.85	11.0	38.3	3.4	9.1	15.7	32.0
16 +	7.82	2.69	.31	.78	1.26	2.77	9.6	33.9	3.3	11.4	15.5	35.9
TAX STATUS												
Nonprofit	8.25	3.43	.30	.68	1.21	2.53	10.4	41.4	3.3	8.7	14.6	30.8
For-profit	9.66	3.85	.25	.86	1.40	3.30	12.8	39.3	2.5	8.7	14.8	34.7
QUALIFICATION STATUS												
Federally qualified	8.99	3.50	.29	.85	1.41	2.86	11.4	38.4	3.2	9.7	16.1	31.9
Non-qualified	9.16	4.03	.23	.62	1.10	3.18	12.4	44.3	2.2	6.4	11.7	35.4
OWNERSHIP												
Blue Cross/Blue Shield	8.62	3.16	.20	.70	1.32	3.23	11.0	36.8	2.3	7.9	15.5	37.5
Other Insurer	10.67	3.47	.28	.97	1.66	4.30	13.5	32.8	2.4	8.5	14.6	41.7
National HMO Chain	8.18	3.08	.22	.59	1.29	3.00	10.0	35.4	2.6	10.4	17.3	34.3
Independent	8.72	3.42	.34	.91	1.36	2.56	11.7	40.1	3.7	10.1	15.4	29.2
Provider-sponsored	9.40	4.48	.27	.69	1.12	2.85	12.6	46.5	2.5	7.0	12.3	31.6
Other	9.14	4.31	.25	.76	1.60	2.22	10.0	44.8	3.7	8.9	16.6	26.1

Table 12 (continued)
Mean Selected Administrative Expenses per Member per Month and as a Percent of Administrative Expenses, by Selected Plan Characteristics, 1988[1,2,3]

	Administrative Expenses per Member per Month							Expenses as Percent of Administrative Expenses				
	Total	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other	Administrative Expenses as % of Total Expenses[4]	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other
Plans > 3 Years (n = 161)	$8.78	$3.45	$.29	$.78	$1.33	$2.89	11.4%	39.1%	3.1%	9.0%	15.2%	33.1%
MODEL												
Staff	9.02	3.40	.60	.81	1.48	2.73	10.9	36.3	6.4	9.1	16.8	31.4
Group	6.66	2.36	.14	.54	1.17	2.17	8.6	34.4	2.3	9.8	17.0	32.9
Network	8.78	2.62	.24	.63	1.59	3.71	11.9	31.1	2.8	7.0	16.6	42.5
IPA	9.38	4.01	.25	.87	1.27	2.99	12.3	43.4	2.4	9.1	13.7	31.5
REGION												
New England	10.12	3.67	.41	.87	1.32	3.84	11.3	37.8	3.5	8.8	13.1	36.8
Mid-Atlantic	7.90	2.76	.35	.94	1.34	2.14	11.7	36.4	4.3	11.2	16.8	26.8
South Atlantic	10.58	4.72	.51	.83	1.38	3.13	13.4	44.8	4.2	7.6	12.7	30.7
East Central	8.08	3.25	.19	.67	1.27	2.70	10.5	39.6	2.2	8.0	15.6	34.5
West Central	8.41	3.03	.29	.74	1.34	3.01	11.3	35.2	3.8	8.3	16.9	35.7
Mountain/Pacific	8.86	3.49	.20	.77	1.35	3.05	11.1	39.4	2.2	10.1	14.8	33.5
SIZE												
0-19,999	9.16	3.80	.44	.74	1.44	2.74	12.8	42.5	4.3	8.6	14.6	30.0
20,000-49,999	9.71	4.49	.28	.77	1.11	3.05	12.5	46.0	2.9	7.5	11.2	32.4
50,000-99,999	8.23	3.09	.31	.71	1.30	2.66	10.8	37.3	3.5	8.3	16.7	32.1
100,000 +	8.36	2.75	.19	.87	1.48	3.08	10.2	33.4	2.1	11.1	17.3	36.1
AGE												
4-7	9.19	3.90	.26	.75	1.30	2.97	12.3	41.9	2.7	7.9	14.5	33.0
8-15	8.71	3.26	.30	.80	1.38	2.85	11.0	38.3	3.4	9.1	15.7	32.0
16 +	7.82	2.69	.31	.78	1.26	2.77	9.6	33.9	3.3	11.4	15.5	35.9
TAX STATUS												
Nonprofit	8.05	3.25	.31	.70	1.21	2.48	10.2	40.3	3.5	9.1	15.0	30.9
For-profit	9.47	3.64	.26	.85	1.44	3.28	12.5	37.9	2.7	8.9	15.4	35.1
QUALIFICATION STATUS												
Federally qualified	8.83	3.40	.29	.84	1.42	2.81	11.2	38.2	3.2	9.8	16.4	31.7
Non-qualified	8.62	3.57	.29	.57	1.05	3.14	12.0	42.0	2.9	6.3	11.4	37.4
OWNERSHIP												
Blue Cross/Blue Shield	8.53	3.32	.19	.69	1.33	3.00	10.8	38.8	2.3	7.9	15.7	35.4
Other Insurer	10.18	3.69	.26	.95	1.40	3.88	12.4	36.4	2.5	8.6	13.3	39.2
National HMO Chain	8.00	2.80	.17	.59	1.36	3.10	9.8	33.4	2.1	10.7	18.2	35.6
Independent	8.66	3.40	.35	.90	1.31	2.55	11.6	40.1	3.8	9.9	15.2	29.2
Provider-sponsored	9.03	3.75	.35	.69	1.26	2.97	12.2	40.9	3.3	7.5	13.5	34.8
Other	9.14	4.31	.25	.76	1.60	2.22	10.0	44.8	3.7	8.9	16.6	26.1

Table 12 (continued)
Mean Selected Administrative Expenses per Member per Month and as a Percent of Administrative Expenses, by Selected Plan Characteristics, 1988[1,2,3]

	Administrative Expenses per Member per Month							Expenses as Percent of Administrative Expenses				
	Total	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other	Administrative Expenses as % of Total Expenses[4]	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other
Profitable Plans > 3 Years[5] (n = 83)	$8.63	$3.37	$.27	$.69	$1.42	$2.87	11.3%	38.8%	2.9%	7.9%	16.6%	33.7%
MODEL												
Staff	9.51	3.86	.60	.85	1.57	2.63	11.2	39.4	5.6	9.0	17.0	29.1
Group	6.30	2.64	.19	.36	1.23	1.88	8.4	38.5	3.4	5.9	17.9	34.3
Network	7.91	2.13	.10	.48	1.54	3.66	10.1	31.4	1.6	5.9	18.3	42.9
IPA	9.27	3.78	.22	.80	1.39	3.09	12.6	41.0	2.0	8.7	15.6	32.7
REGION												
New England	10.28	3.32	.46	.79	1.45	4.25	11.4	34.2	3.7	7.9	14.2	40.0
Mid-Atlantic	7.50	2.78	.35	1.10	1.45	1.82	11.7	38.7	4.5	13.2	19.0	24.6
South Atlantic	11.53	4.86	.71	.86	1.67	3.43	14.9	42.5	5.1	7.4	14.1	30.9
East Central	7.91	3.20	.15	.60	1.25	2.72	10.9	38.9	1.9	7.4	15.7	36.1
West Central	7.52	2.90	.15	.45	1.52	2.50	9.9	36.1	2.1	6.1	22.3	33.4
Mountain/Pacific	8.61	3.47	.13	.53	1.44	3.03	10.1	40.8	2.0	6.2	15.8	35.2
SIZE												
0-19,999	8.78	3.43	.39	.67	1.38	2.92	11.8	40.8	4.1	7.9	14.8	32.4
20,000-49,999	9.88	5.06	.25	.76	1.20	2.60	13.1	52.4	2.4	7.7	12.3	25.1
50,000-99,999	7.85	2.70	.32	.62	1.58	2.63	10.5	33.9	3.6	7.3	20.6	34.7
100,000 +	8.48	2.89	.19	.73	1.43	3.24	10.6	33.9	2.0	8.5	16.7	39.0
AGE												
4-7	8.63	3.48	.24	.65	1.47	2.79	12.2	40.0	2.4	7.6	18.0	32.0
8-15	8.79	3.50	.28	.71	1.42	2.87	10.7	40.8	3.1	8.1	16.1	31.9
16 +	8.26	2.81	.34	.73	1.30	3.07	10.7	31.7	3.4	8.1	14.9	41.9
TAX STATUS												
Nonprofit	8.51	3.35	.38	.65	1.35	2.78	10.7	39.6	3.9	7.4	15.5	33.6
For-profit	8.75	3.39	.17	.73	1.49	2.97	11.9	38.1	1.9	8.4	17.8	33.8
QUALIFICATION STATUS												
Federally qualified	8.82	3.39	.30	.76	1.61	2.76	11.1	37.8	3.2	8.6	18.8	31.7
Non-qualified	8.13	3.31	.22	.52	.91	3.18	11.9	41.9	2.1	5.9	10.7	39.4
OWNERSHIP												
Blue Cross/Blue Shield	8.53	3.18	.10	.61	1.68	2.95	11.8	35.9	1.2	6.8	20.3	35.8
Other Insurer	*	*	*	*	*	*	*	*	*	*	*	*
National HMO Chain	8.14	2.55	.06	.28	1.50	3.74	9.3	28.6	1.5	4.4	19.7	45.7
Independent	8.89	3.48	.37	.84	1.37	2.82	11.6	40.8	3.8	9.2	15.5	30.7
Provider-sponsored	8.28	3.42	.29	.59	1.19	2.78	11.5	40.4	2.9	7.0	14.2	35.4
Other	*	*	*	*	*	*	*	*	*	*	*	*

Table 12 (continued)
Mean Selected Administrative Expenses per Member per Month and as a Percent of Administrative Expenses, by Selected Plan Characteristics, 1988[1,2,3]

	Administrative Expenses per Member per Month						Administrative Expenses as % Total Expenses[4]	Expenses as Percent of Administrative Expenses				
	Total	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other		Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other
Unprofitable Plans > 3 Years (n = 78)	$8.93	$3.53	$.30	$.87	$1.23	$2.91	11.5%	39.4%	3.3%	10.1%	13.6%	32.3%
MODEL												
Staff	8.27	2.68	.61	.75	1.34	2.89	10.5	31.9	7.5	9.4	16.6	34.7
Group	7.03	2.08	.09	.72	1.11	2.46	8.9	30.4	1.2	13.6	16.2	31.4
Network	10.10	3.35	.44	.86	1.65	3.79	14.6	30.7	4.6	8.5	14.2	42.0
IPA	9.48	4.22	.27	.94	1.16	2.89	11.9	45.6	2.7	9.4	12.0	30.3
REGION												
New England	*	*	*	*	*	*	*	*	*	*	*	*
Mid-Atlantic	8.37	2.75	.34	.75	1.20	2.52	11.7	33.5	4.1	8.7	14.2	29.5
South Atlantic	9.85	4.62	.35	.82	1.16	2.91	12.2	46.5	3.4	7.8	11.6	30.6
East Central	8.28	3.32	.23	.75	1.31	2.68	10.0	40.5	2.5	8.8	15.6	32.6
West Central	9.10	3.14	.40	.95	1.20	3.40	12.3	34.6	5.1	10.1	12.7	37.5
Mountain/Pacific	9.10	3.50	.26	1.00	1.27	3.07	12.0	38.1	2.4	13.8	13.8	31.9
SIZE												
0-19,999	9.73	4.36	.52	.86	1.53	2.46	14.3	44.8	4.7	9.4	14.4	26.6
20,000-49,999	9.58	4.07	.31	.78	1.04	3.39	12.0	41.2	3.3	7.4	10.3	37.8
50,000-99,999	8.61	3.48	.30	.80	1.02	2.68	11.2	40.8	3.5	9.2	12.9	29.6
100,000 +	8.19	2.56	.20	1.05	1.54	2.85	9.8	32.9	2.3	14.6	18.0	32.3
AGE												
4-7	9.72	4.30	.29	.85	1.14	3.14	12.5	43.6	2.9	8.3	11.4	33.9
8-15	8.63	2.99	.33	.89	1.33	2.83	11.4	35.3	3.8	10.1	15.3	32.2
16 +	7.22	2.53	.26	.85	1.22	2.36	8.2	37.0	3.1	15.8	16.4	27.6
TAX STATUS												
Nonprofit	7.53	3.13	.24	.75	1.04	2.15	9.6	41.2	3.1	10.9	14.4	27.8
For-profit	10.20	3.89	.36	.97	1.39	3.59	13.2	37.8	3.5	9.4	12.9	36.5
QUALIFICATION STATUS												
Federally qualified	8.84	3.42	.28	.93	1.22	2.86	11.3	38.6	3.1	11.0	14.0	31.7
Non-qualified	9.28	3.93	.39	.65	1.24	3.08	12.1	42.3	3.9	6.9	12.3	34.7
OWNERSHIP												
Blue Cross/Blue Shield	8.53	3.38	.22	.73	1.17	3.03	10.5	40.1	2.7	8.3	13.7	35.2
Other Insurer	10.39	3.87	.26	.88	1.16	4.23	12.3	38.0	2.5	7.4	10.1	42.1
National HMO Chain	7.89	3.00	.25	.83	1.23	2.58	10.2	37.4	2.6	15.8	17.0	27.2
Independent	8.27	3.26	.33	1.00	1.21	2.10	11.5	38.9	3.9	11.2	14.5	26.7
Provider-sponsored	10.51	4.41	.47	.90	1.40	3.33	13.7	41.9	3.9	8.4	12.2	33.6
Other	*	*	*	*	*	*	*	*	*	*	*	*

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.
3. Some respondents may have aggregated various line items into the "other" category.
4. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.
5. This column is not identical to the one on Table 10 because the sample sizes differ.

Source: GHAA's Annual HMO Industry Survey

*Data are not shown where cell size is less than 4 plans

Table 13
Mean Selected Medicare Expenses per Member per Month and as a Percent of Medicare Expenses, 1988[1,2]

	Expenses per Member per Month				Expenses as a Percent of Total Medicare Expenses		
	Total	Physician	Facility	Administrative	Physician	Facility	Administrative
All Plans (n = 33)	$183.00	$86.10	$81.89	$15.01	49.2%	40.6%	10.2%
MODEL							
Staff/Group	152.70	75.22	62.57	14.92	49.9	38.5	11.6
Network/IPA	202.69	93.17	94.44	15.07	48.7	42.0	9.3
AGE							
1-3	30.18	16.47	.95	12.77	54.6	3.1	42.3
4-7	226.77	103.96	101.40	21.41	49.1	40.7	10.3
8-15	165.13	78.10	76.04	10.99	49.0	42.7	8.3
16+	221.70	109.02	89.30	23.38	48.7	39.3	12.0
Plans > 3 Years (n = 32)	187.77	88.28	84.41	15.08	49.0	41.8	9.2
MODEL							
Staff/Group	152.70	75.22	62.57	14.92	49.9	38.5	11.6
Network/IPA	211.77	97.21	99.36	15.19	48.4	44.1	7.6

Notes:
1. Excludes plans with 1,000 Medicare enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.
*Data are not shown where cell size is less than 4 plans.
Source: GHAA's Annual HMO Industry Survey

Table 14
Mean Selected Medicaid Expenses per Member per Month and as a Percent of Medicaid Expenses, 1988[1,2]

	Expenses per Member per Month				Expenses as a Percent of Total Medicaid Expenses		
	Total	Physician	Facility	Administrative	Physician	Facility	Administrative
All Plans (n = 21)	$75.07	$30.03	$32.47	$12.57	41.3%	39.5%	19.2%
MODEL							
Staff/Group	70.32	30.20	31.70	8.42	47.2	37.8	15.0
Network/IPA	78.63	29.91	33.04	15.68	37.3	40.7	22.0
AGE							
1–3	97.70	26.57	52.12	19.00	28.1	51.7	20.2
4–7	55.63	17.97	26.47	11.19	37.3	38.0	24.7
8–15	74.99	36.45	27.41	11.13	47.7	38.0	14.2
16 +	66.02	31.45	24.98	9.59	45.9	32.0	22.0
Plans > 3 Years (n = 17)	68.00	31.11	26.33	10.56	45.3	35.9	18.8
MODEL							
Staff/Group	64.55	33.22	23.63	7.70	52.4	32.2	15.4
Network/IPA	71.44	29.00	29.02	13.42	38.9	39.2	21.9

Notes:

1. Excludes plans with 1,000 Medicaid enrollees or fewer less and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.

Source: GHAA's Annual HMO Industry Survey

APPENDICES

Table A-1
Response Rates to GHAA's Fourth Annual Industry Survey by Selected Plan Characteristics, 1988–1989[1]

Selected Characteristics	Number Surveyed[2]	Response Rate (%)				Total Enrollment	Respondent Enrollment	Enrollment Response Rate		
								% Response		
		Number Responding	All Plans	> 3	≤ 3			All plans	> 3	≤ 3
TOTAL	570	332	58.2	62.7	48.0	32,277,873	23,732,245	73.5	75.2	55.1
MODEL[3]										
Staff	66	41	62.1	62.7	57.1	4,213,807	3,395,557	80.6	81.3	34.1
Group	78	55	70.5	72.5	55.6	9,515,926	8,791,832	92.4	92.6	79.7
Network	71	44	62.0	67.3	50.0	4,170,766	3,038,976	72.9	72.3	77.8
IPA	355	192	54.1	58.6	46.7	14,377,374	8,505,880	59.2	60.8	49.8
SIZE										
0–19,999	240	113	47.1	48.2	46.1	2,356,882	1,150,792	48.8	45.9	52.3
20,000–49,999	161	93	57.8	60.2	50.0	5,001,832	2,952,736	59.0	61.7	49.3
50,000–99,999	97	69	71.1	71.4	66.7	6,833,349	4,926,827	72.1	72.9	59.3
100,000 +	72	57	79.2	78.9	100.0	18,085,810	14,701,890	81.3	81.1	100.0
PLAN AGE										
2–3	173	83	48.0	—	48.0	2,708,029	1,492,074	55.1	—	55.1
4–7	213	116	54.5	54.5	—	7,811,327	4,932,535	63.1	63.1	—
8–15	130	95	73.1	73.1	—	11,110,617	7,913,289	71.2	71.2	—
16 +	54	38	70.4	70.4	—	10,647,900	9,394,347	88.2	88.2	—
GHAA MEMBERS										
Member	253	177	70.0	78.4	44.4	19,636,694	17,513,706	89.2	91.2	50.9
Non-member	317	155	48.9	48.3	50.0	12,641,179	6,218,539	49.2	47.9	57.4
TAX STATUS										
Nonprofit	190	134	70.5	73.1	58.8	17,081,730	14,654,533	85.8	86.3	71.8
For-profit	380	198	52.1	56.0	45.3	15,196,143	9,077,712	59.7	61.2	50.6
QUALIFICATION STATUS										
Federally qualified	320	201	62.8	64.7	52.9	24,917,091	19,002,401	76.3	25.3	97.4
Non-qualified	250	131	52.4	58.6	45.9	7,360,782	4,729,844	64.3	91.6	79.2

Notes:

1. This analysis is based on information provided by plans for *GHAA's National Directory of HMOs*, 1989 ed. Enrollment and plan characteristics are as of December 31, 1988.
2. Plans surveyed include all HMOs operational as of January 1, 1989.
3. Represents predominate model type as designated by plan.

Source: Data from *GHAA's National Directory of HMOs*, 1989 ed.

Respondents to the GHAA Annual HMO Industry Survey

AV-MED Health Plan (Miami, FL)
AllHealth (Madison, WI)
AmeriMed (Burbank, CA)
AmeriPlan Health Services, Inc. (Jacksonville, FL)
Arizona Health Plan, Inc./Phoenix IPA (Phoenix, AZ)
Arizona Physicians IPA, Inc. (Phoenix, AZ)
Baptist Medical System HMO, Inc., (Little Rock, AR)
Bay Pacific Health Plan (San Bruno, CA)
Bay State Health Care, Inc. (Cambridge, MA)
Blue Care Network—Health Central (Lansing, MI)
Blue Care Network of East Michigan (Saginaw, MI)
Blue Care Network of South East Michigan (Southfield, MI)
Blue Care Network, Great Lakes (Grand Rapids, MI)
BlueLincs HMO (Tulsa, OK)
Bridgeway Plan for Health (San Francisco, CA)
Bronx Health Plan (Bronx, NY)
CIGNA Health Network, Inc. (Dallas, TX)
CIGNA Healthplan Mid-Atlantic (Columbia, MD)
CIGNA Healthplan of Arizona, Inc.—Tucson (Tucson, AZ)
CIGNA Healthplan of Arizona, Inc.—Phoenix (Phoenix, AZ)
CIGNA Healthplan of CA.—San Diego (San Diego, CA)
CIGNA Healthplan of California, Inc. (Glendale, CA)
CIGNA Healthplan of Colorado, Inc. (Denver, CO)
CIGNA Healthplan of Florida, Inc.—Maitland (Maitland, FL)
CIGNA Healthplan of Florida, Inc.—Tampa (Tampa, FL)
CIGNA Healthplan of Georgia, Inc. (Atlanta, GA)
CIGNA Healthplan of Illinois (Des Plaines, IL)
CIGNA Healthplan of Kansas City (Kansas City, MO)
CIGNA Healthplan of Louisiana, Inc. (Baton Rouge, LA)
CIGNA Healthplan of Massachusetts, Inc. (Springfield, MA)
CIGNA Healthplan of North Louisiana (Shreveport, LA)
CIGNA Healthplan of Northern California (Oakland, CA)
CIGNA Healthplan of Ohio, Inc. (Cleveland, OH)
CIGNA Healthplan of Ohio, Inc.—Columbus (Columbus, OH)
CIGNA Healthplan of South Florida (Miami Lakes, FL)
CIGNA Healthplan of St. Louis (Clayton, MO)
CIGNA Healthplan of Texas (Irving, TX)
CIGNA Healthplan of Washington, Inc. (Seattle, WA)
CaliforniaCare (Woodland Hills, CA)
Capital Area Community Health Plan, Inc. (Latham, NY)
Capital District Physicians' Health Plan (Albany, NY)
Capitol Health Care (Salem, OR)
Care Choices Health Plans/Mercy Alternative (Farmington Hill, MI)
Care Plan HMO (Fargo, ND)
CareAmerica Health Plan, Inc. (Chatsworth, CA)
CareChoice—Chattanooga (Chattanooga, TN)
Carlecare, Inc. (Urbana, IL)
Central Massachusetts Health Care, Inc. (Worcester, MA)

Central Medical Health Plan (Pittsburgh, PA)
Central Minnesota Group Health Plan (St. Cloud, MN)
Chicago HMO, Ltd. (Chicago, IL)
ChoiceCare (Cincinnati, OH)
ChoiceCare—Long Island (Uniondale, NY)
ChoiceCare of Kentucky (Crestview Hills, KY)
Clinicare (Rockford, IL)
CoMED HMO—A Total Health Company (Denville, NJ)
Columbia Medical Plan, Inc. (Columbia, MD)
Community Blue, HMO of Blue Cross of Western New York, Inc. (Buffalo, NY)
Community Choice Health Plan, Inc. (Marshfield, WI)
Community Health Care Plan (New Haven, CT)
Community Health Group (Chula Vista, CA)
Community Health Network (Baton Rouge, LA)
Companion Health Care Corporation (Columbia, SC)
Compass Health Care Plans (Chicago, IL)
Compcare Health Services Insurance Corporation (Milwaukee, WI)
Complete Health, Inc. (Birmingham, AL)
Comprecare (Birmingham, AL)
Comprecare, Inc. (Aurora, CO)
Comprehensive Health Services, Inc. (Detroit, MI)
ConnectiCare, Inc. (Farmington, CT)
Constitution Health Network (Meriden, CT)
Contra Costa Health Plan (Martinez, CA)
DAKOTACARE (Sioux Falls, SD)
DeanCare HMO (Middleton, WI)
Delaware Valley HMO (Concordville, PA)
Delmarva Health Care Plan, Inc. (Easton, MD)
Deseret Healthcare (Salt Lake City, UT)
EQUICOR Health Plan (Brentwood, TN)
EQUICOR Health Plan Of Utah, Inc. (Salt Lake City, UT)
EQUICOR Health Plan of Florida Inc. (St. Petersburg, FL)
EQUICOR Health Plan, Inc. (Glen Allen, VA)
EQUICOR Health Plan, Inc. (Wichita, KS)
EQUICOR Health Plan, Inc.—Statewide Network (Phoenix, AZ)
Eau Claire Health Protection Plan (Wausau, WI)
Educators Health Care, Inc. (Murray, UT)
Empire Blue Cross & Blue Shield Healthnet (New York, NY)
Employees Choice Health Option (Salt Lake City, UT)
Employer's Health Care Plan (Green Bay, WI)
FHP, Inc. (Fountain Valley, CA)
FIRSTSOURCE, Inc. (Albuquerque, NM)
Fallon Community Health Plan (West Boylston, MA)
Family Health Plan (Toledo, OH)
Family Health Plan Cooperative (Elm Grove, WI)
Family Health Plan Corporation (Newton, KS)
Family Health Plan, Inc. (Miami Lakes, FL)
First Plan HMO (Two Harbors, MN)
Florida Health Care Plan, Inc. (Daytona Beach, FL)
Foundation Health Plan (Gold River, CA)
Foundation Health Plan (Endwell, NY)
Foundation Health Plan of New Mexico (Albuquerque, NM)
Free State Health Plan, Inc. (Cockeysville, MD)
Freedom Health Care (Wayne, PA)
Geisinger Health Plan (Danville, PA)

George Washington University Health Plan, Inc. (Washington, DC)
Grand Valley Health Plan (Grand Rapids, MI)
Greater Wisconsin Rapids Health Protection Plan (Wausau, WI)
Green Bay Health Protection Plan (Wausau, WI)
Group Health (Rochester, NY)
Group Health Association, Inc. (Washington, DC)
Group Health Cooperative of Eau Claire (Eau Claire, WI)
Group Health Cooperative of Puget Sound (Seattle, WA)
Group Health Cooperative of South Central Wisconsin (Madison, WI)
Group Health Northwest (Spokane, WA)
Group Health Plan, Inc. (St. Louis, MO)
Group Health, Inc. (Minneapolis, MN)
Guam Memorial Health Plan (Agana, GU)
Gulf South Health Plans, Inc. (Baton Rouge, LA)
HEALS, Personal Care Physician Health Plan (Emeryville, CA)
HEALTH OPTIONS, INC. (Jacksonville, FL)
HIP Network of Florida, Inc. (Ft. Lauderdale, FL)
HIP of New Jersey (Robbinsville, NJ)
HMO America—Indiana, Inc. (Chicago, IL)
HMO Colorado (Denver, CO)
HMO Health Ohio/BC & BS of Ohio (Cleveland, OH)
HMO Kansas, Inc. (Topeka, KS)
HMO Kentucky, Inc. (Louisville, KY)
HMO Nebraska, Inc. (Omaha, NE)
HMO Rhode Island (Providence, RI)
HMO Virginia, Inc. (Richmond, VA)
HMO Washington (Seattle, WA)
HMO Wyoming (Cheyenne, WY)
HMO of North Carolina, Inc. (Durham, NC)
HMO of Northeastern PA (Wilkes-Barre, PA)
HMO of Wisconsin Insurance Corporation (Prairie du Sac, WI)
Harris Health Plan (Fort Worth, TX)
Harvard Community Health Plan (Brookline Vil., MA)
Harvard University Group Health Plan (Cambridge, MA)
Hawaii Medical Services Association/Community Health Program (Honolulu, HI)
Health Alliance Plan (Lakeland, FL)
Health Alliance Plan of Michigan (Detroit, MI)
Health Care Plan, Inc. (Buffalo, NY)
Health First, Inc. (Atlanta, GA)
Health Guard (Bellaire, OH)
Health Insurance Plan of Greater New York (New York, NY)
Health Maintenance Group Birmingham Division (Birmingham, AL)
Health Maintenance Plan (Cincinnati, OH)
Health Maintenance of Indiana (Indianapolis, IN)
Health Net (Van Nuys, CA)
Health Network of Colorado Springs, Inc. (Colorado Spring, CO)
Health New England (Springfield, MA)
Health One (Columbus, OH)
Health Plan Hawaii (Honolulu, HI)
Health Plan of Central Illinois, Inc. (Peoria, IL)
Health Plan of Nevada, Inc. (Las Vegas, NV)
Health Plan of the Redwoods (Santa Rosa, CA)
Health Plan of the Upper Ohio Valley, Inc. (St. Clairsville, OH)
Health Power of Columbus/Family HealthNet of Ohio (Columbus, OH)
Health Power of Dayton, Inc. (Columbus, OH)

Health Services Medical Corp. (Baldwinsville, NY)
HealthAmerica Corporation of Pennsylvania (Pittsburgh, PA)
HealthAmerica of Pennsylvania, Inc. (Camp Hill, PA)
HealthCare Corporation of the Mid-Atlantic (Baltimore, MD)
HealthCare, Inc. (North Haven, CT)
HealthChicago, Inc. (Lisle, IL)
HealthGuard Services, Inc.—SelectCare (Eugene, OR)
HealthGuard of Lancaster Inc. (Lancaster, PA)
HealthKeepers of Virginia, Inc. (Richmond, VA)
HealthOhio, Inc. (Marion, OH)
HealthPlan Southeast (Tallahassee, FL)
HealthPlus (Seattle, WA)
HealthPlus of Michigan (Flint, MI)
HealthPlus, Inc. (Riverdale, MD)
HealthWays, Inc. (Iselin, NJ)
HealthWise (Lexington, KY)
Healthcare Delaware (Wilmington, DE)
Healthsource Maine (Yarmouth, ME)
Healthsource New Hampshire (Concord, NH)
Healthsource South Carolina (Charleston, SC)
Heart of America HMO (Rugby, ND)
Heritage Health Plan of South Florida (Miami, FL)
Heritage National Healthplan, Inc. (Davenport, IA)
Holzer Health Plan (Columbus, OH)
HomeTown Hospital Health Plan (Massillon, OH)
Hospital Choice Health Plan (Worthington, OH)
Hospital Sisters HMO Corp. of Illinois/Unity Health Plan (Springfield, IL)
Humana Health Care Plan, Inc. (Lexington, KY)
Humana Health Care Plans (Louisville, KY)
Humana Health Care Plans (Miami, FL)
Humana Health Care Plans (Orlando, FL)
Humana Health Care Plans (Ormond Beach, FL)
Humana Health Care Plans (Tampa, FL)
Humana Health Plan (Phoenix, AZ)
Humana Health Plan of TX, Inc. (Corpus Christi, TX)
Humana Health Plan of TX, Inc. (San Antonio, TX)
IHC Care, Inc. (Salt Lake City, UT)
Illinois Masonic Community Health Plan (Chicago, IL)
Independent Health Association (Buffalo, NY)
Independent Health of Pennsylvania (Erie, PA)
Independent Prepaid Health Plan (Baldwinsville, NY)
InterValley Health Plan (Pomona, CA)
Intergroup Prepaid Health Services of Arizona, Inc. (Tucson, AZ)
JMH Health Plan (Miami, FL)
John Hancock HealthPlan of Pennsylvania, Inc. (Philadelphia, PA)
Johns Hopkins Health Plan (Baltimore, MD)
Kaiser Foundation Health Plan of Colorado, Inc. (Denver, CO)
Kaiser Foundation Health Plan of Georgia, Inc. (Atlanta, GA)
Kaiser Foundation Health Plan of Kansas City, Inc. (Shawnee Mission, KS)
Kaiser Foundation Health Plan of Mid-Atlantic States, Inc. (Washington, DC)
Kaiser Foundation Health Plan of North Carolina, Inc. (Raleigh, NC)
Kaiser Foundation Health Plan of Ohio, Inc. (Cleveland, OH)
Kaiser Foundation Health Plan of Texas, Inc. (Dallas, TX)
Kaiser Foundation Health Plan of the Northwest, Inc. (Portland, OR)
Kaiser Foundation Health Plan, Inc.—Hawaii Region (Honolulu, HI)

Kaiser Foundation Health Plan, Inc.—N. California Region (Oakland, CA)
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Kaiser Foundation Health Plan, Inc.—Northeast Region (Hartford, CT)
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Keystone Health Plan East, Inc. (Bala-Cynwyd, PA)
Keystone Health Plan West, Inc. (Pittsburgh, PA)
Lake Shore HMO (Holland, MI)
Lake Winnebago Health Protection Plan (Wausau, WI)
Licking Memorial Hospital Health Plan (Newark, OH)
Lincoln National Health Plan (Bethesda, MD)
Loma Linda Affiliated Health Plan (Loma Linda, CA)
Lovelace Health Plan, Inc. (Albuquerque, NM)
M.D. Health Plan (New Haven, CT)
M.D. Individual Practice Association, Inc. (Rockville, MD)
MIT Health Plan (Cambridge, MA)
Magna Care Health Plan (Cincinnati, OH)
Matthew Thornton Health Plan (Nashua, NH)
Medical Associates Health Plan, Inc. (Dubuque, IA)
Medical Center Health Plan (Pensacola, FL)
Medical Value Plan (Toledo, OH)
Medical West Community Health Plan, Inc. (Framingham, MA)
Medigroup, Inc. (Cranford, NJ)
Mercy Health Plan (Philadelphia, PA)
Michael Reese Health Plan,Inc. (Chicago, IL)
Mid-Hudson Health Plan, Inc. (Kingston, NY)
Mobile Health Plan (Mobile, AL)
Mohawk Valley Physicians Health Plan (Schenectady, NY)
Mt. Sinai Health Maintenance Organization (Miami Beach, FL)
NWNL Health Network, Inc. (St. Paul, MN)
National Med (Modesto, CA)
Neighborhood Health Plan Inc. (Dorchester, MA)
Network Health Plan of Wisconsin, Inc. (Appleton, WI)
North Central Health Protection Plan (Wausau, WI)
OMNICARE/The HMO (Vineland, NJ)
Ochsner Health Plan of New Orleans (Metairie, LA)
OmniCare Health Plan (Detroit, MI)
Optima Health Plan (Norfolk, VA)
PARTNERS Health Plan of Alabama, Inc. (Birmingham, AL)
PARTNERS National Health Plan of Georgia (Atlanta, GA)
PARTNERS Health Plan of the Mid-Atlantic (Fairfax, VA)
PARTNERS National Health Plan of North Carolina, Inc. (Winston-Salem, NC)
PARTNERS in Health Maintenance of Arizona (Tucson, AZ)
PacifiCare of California (Cypress, CA)
PacifiCare of Oklahoma—Tulsa (Tulsa, OK)
PacifiCare of Oregon and Washington (Tigard, OR)
PacifiCare of Texas, Inc. (San Antonio, TX)
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Patient Care of America (Miami, FL)
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Peak Health Plan—Denver (Denver, CO)
Peak Health Plan of Idaho (Boise, ID)
Personal Care Plan of North Carolina, Inc. (Durham, NC)
Personal Physician Care of Ohio, Inc. (Cleveland, OH)

PersonalCare Insurance of Illinois, Inc. (Champaign, IL)
Physicians Health Network (Evansville, IN)
Physicians Health Plan of Mid-Michigan (Lansing, MI)
Physicians Health Plan of North Carolina, Inc. (Greensboro, NC)
Physicians Health Plan of Ohio, Inc. (Columbus, OH)
Physicians Health Plan of South Carolina (Columbia, SC)
Physicians Health Plan of Utah (Salt Lake City, UT)
Physicians Health Service of Connecticut, Inc. (Trumbull, CT)
Physicians Health Services HMO, Inc. (Evansville, IN)
Physicians Health Services of New York, Inc. (White Plains, NY)
Physicians Plus HMO (Madison, WI)
Pilgrim Health Care, Inc. (Norwell, MA)
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PrimeCare Health Plan of Wisconsin (Milwaukee, WI)
Principal HealthCare of Nebraska, Inc. (Omaha, NE)
Prudential Health Care Plan, Inc.—PruCare of Atlanta (Atlanta, GA)
Prudential Health Care Plan, Inc.—PruCare of Charlotte (Charlotte, NC)
Prudential Health Care Plan, Inc.—PruCare of Memphis (Memphis, TN)
Prudential Health Care Plan, Inc.—PruCare of Nashville (Nashville, TN)
Prudential Health Care Plan, Inc.—PruCare of Orlando (Maitland, FL)
Prudential Health Care Plan, Inc.—PruCare of Richmond (Richmond, VA)
Prudential Health Care Plan, Inc.—PruCare of Tampa Bay (Tampa, FL)
Prudential Health Care System—PruCare of Jacksonville (Jacksonville, FL)
Q Care (Madison, WI)
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Rochester Area HMO, Inc. (Rochester, NY)
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Samaritan Health Plan (Phoenix, AZ)
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Scan Health Plan (Long Beach, CA)
Scott and White Health Plan (Temple, TX)
Security Health Plan of WI (Marshfield, WI)
SelectCare MedExtend, Inc. (Troy, MI)
Share Health Plan of Colorado (Colorado Springs, CO)
Share Health Plan of Illinois, Inc. (Itasca, IL)
Share Health Plan of Iowa, Inc. (West Des Moines, IA)
Share Health Plan of Minneapolis (Bloomington, MN)
Share Health Plan of Nebraska, Inc. (Omaha, NE)
Sisters of Providence Good Health Plan of Oregon (Portland, OR)
Southeast Health Plan of Alabama, Inc. (Birmingham, AL)
Southern Health Plan, Inc. (Memphis, TN)
Southern Health Services (Richmond, VA)
St. Louis Labor Health Institute (St. Louis, MO)
TakeCare Corporation (Oakland, CA)
Texas Health Plan (Austin, TX)
Total Health Care (Kansas City, MO)
Total Health Care Plan, Inc. (Cleveland, OH)
Trane Health Protection Plan (Wausau, WI)
Tufts Associated Health Plan (Waltham, MA)
United Health Plan (Columbus, OH)
United Health Plan (Inglewood, CA)

University Health Maintenance Organization, Inc. (Cincinnati, OH)
VIP Health Plan/Ventura County HMO (Oxnard, CA)
Valley Health Plan (San Jose, CA)
ValuCare (Fresno, CA)
Welborn HMO (Evansville, IN)
WellCare of New York, Inc. (Newburgh, NY)
West Alabama Health Services, Inc. (Eutaw, AL)
Western Ohio Health Care Plan (Centerville, OH)
Wisconsin Health Organization Insurance Corporation, Inc. (Milwaukee, WI)

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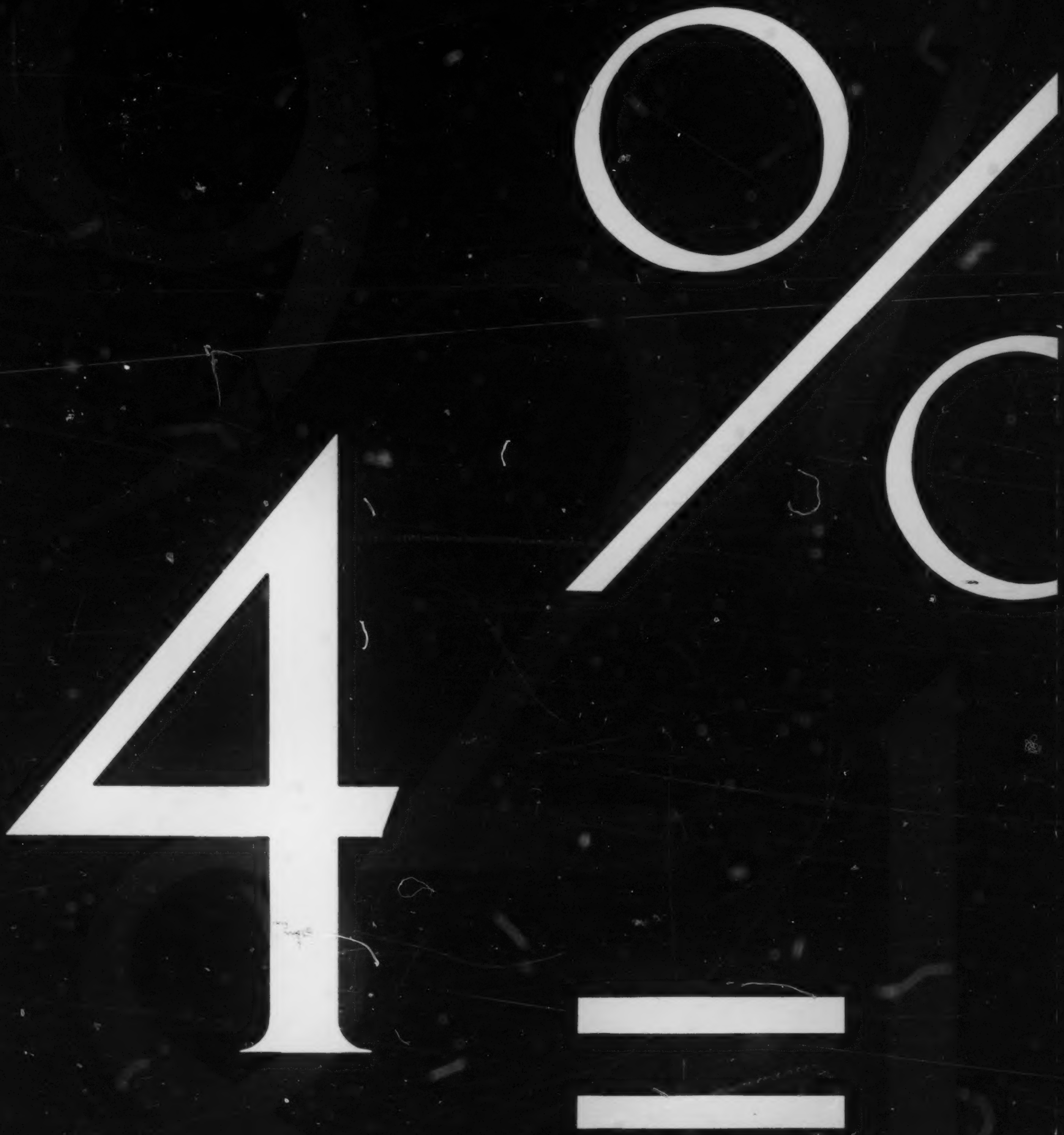
HMO Industry Profile

Data From the Annual HMO Industry Survey

1991 Edition

1 Benefits, Premiums and Market Structure in 1990



HMO INDUSTRY PROFILE

VOLUME 1: BENEFITS, PREMIUMS, AND MARKET STRUCTURE IN 1990

by

Marsha Gold, Sc.D. and
Dennis Hodges, M.S.P.H.

1991 Edition

Data from the Group Health Association of America's
Annual HMO Industry Survey

June 1991

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VOLUMES IN THE SERIES

Volume 1:	Benefits, Premiums, and Market Structure in 1990
Volume 2:	Physician Staffing (1990) and Utilization Patterns (1989)
Volume 3:	Financial Performance, 1989

Each volume incorporates analysis of both current characteristics and trends.

PREFACE

The landscape of the health care environment is undergoing dramatic change. Once viewed as alternative delivery systems, HMOs now are becoming the dominant system in some communities and for some employer groups. Moreover, the concepts HMOs represent are increasingly reflected throughout the entire health care system as purchasers aim to identify how best to contain costs and maintain quality, and society attempts to address the needs of the 31 to 37 million Americans who lack health insurance coverage.

Under these circumstances, it is critical that information and analysis be available so that the experience of the most successful models of managed care can be understood. For this reason, the Group Health Association of America, Inc. (GHAA), the oldest and largest trade association representing prepaid managed health care systems, initiated the Annual HMO Industry Survey. The HMO Industry Profile is the major vehicle through which data from this survey are distributed.

This year's series of reports presents the results of GHAA's fifth Annual HMO Industry Survey. In its multiple volumes, the report provides information on a number of dimensions of HMO organization, performance, and trends, including benefits, premiums, market structure, utilization rates, and financial measures. Each volume incorporates an analysis of both current characteristics and trends.

These reports provide the most comprehensive and detailed set of information on HMOs available, with a range of information virtually unsurpassed by that developed by any other segment of the health care industry. The reports reflect the efforts of GHAA's Research and Analysis Department under its Director, Marsha Gold, Sc.D.

The reports would have been impossible to produce without extensive industry cooperation. The considerable time plans devoted to providing data is particularly impressive given today's competitive climate and economic pressures.

Developing a statistical base for any industry is a long-term process. We continue to make improvements in the content and format of the Survey and Profile based on feedback from our members and the broad spectrum of other users of the reports. We have been encouraged that the range of information provided has been useful to a diverse set of audiences and welcome further suggestions as we proceed with this effort.

James Doherty
President and CEO
Group Health Association
of America, Inc.

ACKNOWLEDGMENTS

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Professor Sam Shapiro of Johns Hopkins University provided advice on survey methods, as he has from the initiation of this project. We are particularly grateful to him for his continuing interest and support for this project and for the contribution he has made to it.

As always, we wish to thank all the HMOs that responded to the survey, taking time to collate from across their organizations the requested statistics. Without the support of the industry, this report would not exist.

Marsha Gold, Sc.D.
Director, Research and Analysis

Dennis Hodges, M.S.P.H.
Project Manager, Annual HMO Industry Survey

June 1991

HIGHLIGHTS

1

This report is based on the Group Health Association of America's fifth Annual Health Maintenance Organization (HMO) Industry Survey. The mail survey was sent to all HMOs operational on or before January 1, 1989. Findings are for 1990 or for March 31, 1990, when they refer to a specific point in time, except as noted. Findings also include an analysis of trends based on responses to questions in 1990 and data from prior years' surveys covering 1985 through 1989.

The 372 responding plans enrolled 28.2 million members on March 31, 1990. Responding plans represent 67% of all surveyed HMOs; their members included 81% of the national enrollment in established plans. Historically, plans over 3 years old have had a higher response rate to the survey: 70% of these plans responded for 1990, their membership accounting for 82% of the enrollment in all HMOs over 3 years old. Unless otherwise stated, the highlighted findings refer to HMOs over 3 years old ("established" plans). With the maturation of the industry, almost all plans were in this category in 1990.

Benefit Structure in 1990

- HMO benefits tended to be comprehensive in 1990, with cost sharing limited. HMO benefits generally compared favorably to those offered by indemnity carriers.
- In 1990, almost all HMOs covered in their best-selling benefit package the basic benefits required under the federal HMO Act regardless of their qualification status. (Sixty-four percent of plans were federally qualified in all or part of their service area.)
  - Virtually all plans (99% or more) covered primary care visits, outpatient laboratory and radiology services, prenatal and well-baby care, emergency care, hospitalizations, home health care, outpatient mental health services, physical therapy, and drug and alcohol detoxification services.
  - Almost all plans (90%-98%) covered inhalation therapy, speech therapy, and vision and hearing tests. Eighty-seven percent covered occupational therapy. Although such services are not required under the federal HMO Act, almost all plans also covered inpatient mental health care, prescription drugs, skilled nursing care, and allergy treatment.
  - In addition, over three-quarters of the plans covered a number of other benefits not required under the Act: drug and alcohol rehabilitation services, dental services for accidental injuries, hospice services, external prosthetics, podiatry, and durable medical equipment. About half covered chiropractic services and temporomandibular joint (TMJ) treatment services.
- On average, 66% of an HMO's enrollment was included in its best-selling package. Eighty-four percent of plans offered at least one less comprehensive benefit package than that plan's best-selling package, and 47%, at least one more comprehensive package.
- Seventy-seven percent of plans covered hospitalizations with no patient payment requirements; fewer than 2% limited the number of covered days. Virtually no plans limited primary care visits; 71.9% required cost sharing, almost always in the form of a fixed dollar copayment. The most common copayment was $5 per visit. Copayments were somewhat less common for prenatal care and well baby visits. Only 16% of plans had patient charges for ancillary services (i.e., laboratory and x-ray services).
  - The use of cost sharing varied with plan char-

acteristics. It was more likely in plans with under 50,000 enrollees, younger plans, Individual Practice Associations (IPAs), for-profit plans, and plans owned by insurers and providers.

  - HMO benefits in 1990 tended to emphasize first dollar coverage, which differs considerably from indemnity insurance in that the latter is structured around deductibles and coinsurance even if preferred providers are selected.

- Almost all plans covering pharmacy services did so with no dollar limit. Ninety percent required some patient payment, generally based on a fixed dollar copayment. The most common copayments were $5 and $3.

- The typical pattern of mental health coverage in HMOs was a 20-visit/30-inpatient-day benefit, with some variation more likely to involve greater rather than lesser benefits. Eighty-eight percent of plans covering the benefit used cost sharing for outpatient services; 42.8% used it for inpatient services. Copayments as a form of cost sharing were most common for outpatient services; copayments and coinsurance were each equally likely for inpatient services. Deductibles were rarely used.

  - Fifty-two percent of plans offered mental health and substance abuse as an integrated benefit, the others did not. There was less consistency in benefits for substance abuse services than for mental health services, indicating less consensus within the industry on how the former are best structured.

  - As with mental health services, plans commonly applied limits to substance abuse services; such limits were less common for detoxification than for rehabilitation services, and detoxification programs also were less likely to have cost-sharing requirements.

Transplant Coverage

- Almost all HMOs covered kidney, cornea, bone marrow, and liver transplants for children with biliary atresia and related conditions in 1990. Seventy-six percent covered heart transplants, 64.2% covered liver transplants for other conditions, 52.6% covered heart-lung transplants, and 38.3%, pancreas transplants. Usually, transplant coverage was provided under at least one of the basic benefit packages of the plan rather than solely as a rider or on a case-by-case basis.

Trends in Benefits and Coverage

- Most HMOs kept their best-selling benefit packages fairly constant in 1990; a number made various changes in the particulars of the package. The most common change was for some increase in cost sharing.

  - Eighty-one percent of plans said the structure of their best-selling benefit package was basically the same in 1990 as in 1989; only 2% said they made major changes.

  - Twenty-three percent said they expanded benefits in 1990; these generally were very specific changes in particular benefits. Twenty-seven percent said they reduced benefits in 1990; these also were very specific, and about half focused on cost-sharing changes.

  - Thirty-five percent said they increased cost sharing on balance in 1990; this compares with 41% in 1989 and 44% in 1988. However, of the 157 plans responding in all three years, 32% reported no increase in cost sharing in any of the three years.

  - Trends in cost sharing varied by type of benefit. The most noticeable changes from 1986 to 1990 were an increase in the percentage of plans using copayments for primary care visits and an increase in the mean amount charged. Use of cost sharing for hospitalizations also appears to have increased over time, although it was still uncommon in 1990.

- The percentage of plans covering various kinds of transplants showed little change between 1986 and 1990.

Premiums, Employer Contributions, and Trends

- In 1990, on average, the monthly premium in a plan's largest single account was $118.16 for single contracts and $313.80 for families.

- The average employer contribution was 87.3% for single contracts, and 77.0% for family contracts. This means that, on average, the employee paid $15.66 per month for self-only coverage, and $73.64 for family coverage in 1990.

- Thirty-eight percent of the plans reported that the employer paid the entire premium for single coverage under the plan's largest single account; for family coverage, the comparable percentage was 22.1%. In 15% of plans, employees were required to pay over half of the family premium.

  - Compared to private employers, the Federal Employees Health Benefits Program (FEHBP) contributed a substantially smaller percentage of the premium. State and local governments paid less than private employers for family coverage.

- In 1990, 36.6% of plans used an equal dollar approach to set the employer contribution to a plan's largest single account; 16.9% of plans used equal percentage methods; 15.6% of plans used negotiated approaches; and 30.8% of plans used other approaches.

  - Seventeen percent of plans indicated that at least one employer account had used a risk adjustment in establishing the employer contribution.

- From 1989 to 1990, HMO premiums for the largest single account increased 16.9% for single contracts and 18.2% for families, on average. Compared to previous years, there was less variation in the average increase across types of plans.

  - Most plans (77.8%) said these increases were similar to those of other accounts, with no consistent pattern of difference among the others.

  - Medical cost inflation—hospital prices, hospital use, outpatient use, physician payments, and pharmaceutical costs—were most commonly cited as very important in exerting upward pressure on HMO premiums. Inflationary factors generally were regarded similarly regardless of model type, but some differences in emphasis existed; these appear to stem from the different structures of provider networks used in diverse models.

- Premium increases in 1990 were similar to those of 1989, with both years showing higher average rates of increase than in other recent years. Though these increases are a cause of employer concern, initial indications from GHAA's *HMO Market Position Report* are that the increases have moderated in 1991.

Rating Methods and Trends

- Prospective rating continued to be used exclusively by almost all HMOs in 1990, with under 10% of all plans making any retrospective adjustment. Most plans (69.4%) used only the various forms of community rating methods permissible under the federal HMO Act.

  - Unless otherwise noted, the analysis of rating methods is based on methods used for private employer groups.

- Some explicit adjustment for group experience was used by over half (55.5%) of plans in 1990. Twenty-five percent used adjusted community rating exclusively to accomplish this; 30.6% made some use of experience rating, but only a quarter of plans employing experience rating used retrospective adjustments.

- In 1990, 22.5% of plans used standard community rating exclusively. Another 21.9% used only community rating by class, either alone or in conjunction with standard community rating.

  - Standard community rating was most common in Mid-Atlantic plans, which partially reflects New York State's statutory requirements for HMOs. Standard community rating as the exclusive rating method also was more likely for group model plans, nonprofit plans, and independent HMOs.

- On average in 1990, 34.4% of a plan's total enrollment was rated using standard community rating, 30.9% using community rating by class, 17.6% by adjusted community rating, and 17.1% by experience rating. However, as might be expected, the averages vary dramatically if plans are categorized according to the mix of methods they employ in their private employer groups.

- Between 1989 and 1990, the percentage of plans using some form of employer group-specific rating increased from 47% to 56%. This occurred as a result of both an increase in the use of adjusted community rating among plans using only federally qualified approaches and an increase in the percentage of plans using experience rating. When viewed from the perspective of change in the average percentage of all enrollees rated using each method, the wider use of adjusted community rating is more apparent.

  - Despite these changes, almost two-thirds of an HMO's enrollees, on average, were rated using standard community rating or community rating by class in 1990.

Average Contract Size and Structure

- The average contract size for an HMO was 2.2 individuals in 1990. For multiperson contracts, the average size was 3.3 individuals.

- The median HMO had approximately 20% more multiperson than single-person contracts, i.e., the median ratio of multiperson contracts to single-person contracts was 1.2.

- These statistics imply that 80% of the median plan's enrollment is based on multiperson contracts.

Enrollment by Payment Source

- Group contracts with employers are the major source of HMO enrollment. Ninety-five percent of HMOs enrolled from private employers or union groups, 86.3% from state or local government contracts, and 63.1% from federal government contracts. In terms of public program involvement, 36.9% had enrollees whose primary payor source was Medicare, and 22.3% had Medicaid enrollees. Just under half (45.9%) had nongroup enrollees (i.e., self-pay), a category that also includes conversions from group contracts.

  - 80% of HMOs enrolling Medicaid populations said these individuals could best be described as Aid to Families with Dependent Children or similar populations (e.g., children, women of child-bearing age).

  - Of plans with Medicare enrollment, 40% enrolled at least some Medicare beneficiaries through employer groups. On average, 16.9% of a plan's Medicare enrollment was from employer groups but this varied considerably.

- On average, 63.0% of an HMO's enrollment was from private employers, 16.6% from state and local government, 6.4% from federal government, 5.5% from Medicaid, 3.7% from Medicare, 2.5% from self-pay, and 2.3% from other sources.

  - Because Medicaid represents a large proportion of the enrollment in a few plans, these averages overstate the average Medicaid enrollment in most plans.

  - Compared to established plans, new plans were much less likely to draw enrollment from sources other than private employers.

- On average, a plan's largest single account contributed 23.3% of total enrollment. These accounts were most likely to be private employer accounts, state and local government accounts, and—to a somewhat lesser extent—federal government accounts.

Small Employer Groups and Individual Enrollment Options

- In 1990, 82.1% of plans enrolled small employer groups (defined as under 25 employees).

  - 96% of plans with 100,000 enrollees or more had enrollment from small employer accounts. Commercial insurers were least likely to be involved in this market (66%).

- On average, small employers accounted for 10.1% of a plan's total enrollment; they accounted for 11.6% of a plan's commercial group enrollment, defined as all enrollees with the exception of Medicare, Medicaid, and self-pay.

- In 1990, 28.9% of plans offered an individual enrollment option on other than a conversion or Medicare wraparound basis. Among plans offering them, these contracts accounted for 2.4% of the median plan's membership; the mean was 3.8%.

  - Group and staff model plans, nonprofit plans, and plans with 50,000 or more members or with 8 or more years operational experience were more likely to offer this option. Plans owned by commercial insurers were least likely to offer the option.

- In 1990, 41.5% of plans offered a prepaid Medicare supplement or Medigap plan (e.g., Medicare wrap). Although intended to *exclude* products offered in conjunction with a Medicare risk or cost contract, some plans possibly did not interpret the question this way, which could lead to a potential overestimate of plans offering supplemental products on a stand-alone basis.

HMO Diversification

- Forty-two percent of plans either had or were in the process of implementing agreements with other HMOs to address the needs of national accounts or employers who wish to offer HMO options under a single umbrella entity.

  - Almost two-thirds (64.9%) of plans with 100,000 members or more had such agreements.

  - Agreements were most likely in plans owned by Blue Cross and Blue Shield organizations and by national HMO companies. However, 38% of independently owned plans had or were developing these types of agreements.

- In 1990, 46.3% of plans offered additional benefit options or "lines of business" other than the traditional HMO comprehensive health benefit coverage.

- Forty-six percent of plans offered one or more of the following options: open-ended or self-referral products (20.4%), Preferred Provider Organization (PPO) options (27.3%), indemnity options (24.4%), exclusive multiple options (16.4%), and employer self-insured options (25.0%).

  - IPAs were most likely to offer one or more of these options (57.6%); group models were least likely to offer them (18.2%).

  - As in 1989, plans owned by commercial insurers were considerably more likely to offer these options. Seventy-two percent of commercially insurer owned plans offered one or more of these options, compared with 29% of Blue Cross and Blue Shield plans and 40% of other plans.

- Although the percentage of plans offering the options noted above appears to have increased from 1989, this partially reflects the more representative response to the 1990 survey. Adjusting partially for these effects, the most notable change appears to be the growth of open-ended or self-referral options in 1990.

  - GHAA's *HMO Market Position Report* suggests that the trend toward more plans offering open-ended options has continued, and potentially accelerated, in 1991.

- In 1990, 35% of plans offered various services, drawing on capabilities developed in their HMO business. Most common were utilization review services (21.0%), free-standing benefit coverage (16.4%), and claims processing services (12.9%).

- Seventeen established plans (4.9%) said they offered a long-term care product.

Perceived Employer Pressures

- Spurred by rising health care costs, purchasers have become increasingly active in structuring the overall design of their health benefit plans. Employer concerns are a major factor in the health care environment faced by HMOs and probably the single most critical influence shaping changes in the HMO industry.

- With respect to health benefits design, the most commonly cited employer pressure—perceived as moderate to heavy by 66.7% of plans—was to reduce the number of HMOs offered. The percentage of plans perceiving these pressures to be heavy increased in 1990 as compared to 1988, the last year in which these questions were asked.

  – Fifty percent of plans perceived moderate to heavy pressure for open-ended HMO options, 47.1% for flexible benefit programs (e.g., cafeteria plans), and 41.1% for exclusive multiple options.

- With respect to HMO benefit packages, the greatest pressure felt by plans was to increase the amount of patient cost sharing: 57.5% perceived moderate to heavy pressure in this area in 1990, up from 47.3% in 1988.

  – Twenty-four percent of plans perceived moderate to heavy pressure to expand substance abuse benefits and 20.7% to expand mental health benefits—somewhat below the percentages in 1988.

  – In contrast, relatively limited pressure was perceived from employers to implement benefit packages that do not meet federal qualification standards or to unbundle basic benefits (e.g., mental health and substance abuse) from the HMO benefit package and offer them on a stand-alone basis.

- In 1990, HMOs also perceived considerable pressure from employers to modify rating methods, with pressures generally increased since 1988. Sixty-one percent of HMOs perceived moderate or heavy pressure to use group experience-related rating methods, 49.0% perceived moderate or heavy pressure for negotiated rates, and 28.5% perceived moderate to heavy pressure for multi-year rate guarantees or rate caps.

  – Twenty-eight percent of plans in 1990 perceived moderate or heavy pressure to modify employer contribution methodologies, and 27.3%, moderate to heavy pressure to allow employers to share risks with the HMO rather than have the HMO fully at risk, as is traditional. (These pressures were not included in the 1988 survey.)

- Corresponding to their greater involvement in health benefits design, more employers also appear to have requested data from HMOs in 1990 than in 1989.

The Average Enrollee Experience: Special Analysis

- The *Profile* focuses on averages of each plan's experience regardless of size, as the major objective is to describe the practices of the plans that make up the HMO industry. For those more interested in characterizing the experience of HMO enrollees than plans, this year's report includes a special analysis of a number of summary statistics, weighted by plan enrollment. (Readers should use caution not to confuse the two sets of statistics.)

- The average enrollee was in a plan charging \$122.84 monthly for single contracts (\$16.69 enrollee share), and \$313.99 monthly for families (\$65.16 enrollee share). These premiums were 17.7% and 19.6% higher, on average, than in 1989.

  – Although average increases are somewhat higher than on an unweighted basis, this may be unique to 1990. In other recent years, premium increases have been lower (sometimes considerably so) in larger plans, which have a disproportionate share of the HMO enrollment.

- Eighty-six percent of enrollees were in plans whose best-selling package had no cost sharing for hospital services, and 44% were in plans with no cost sharing for primary care visits. The cost sharing faced by the typical enrollee is likely to be somewhat overstated by the industry averages.

- Of the 26.2 million enrollees included in plans responding to the question, 29.7% were rated using standard community rating, 24.2% by community rating by class, 35.8% by adjusted community rating, and 10.4% by other forms of group experience-based rating. The weighted statistics indicated that considerably more enrollees fall under adjusted community rating approaches and considerably fewer fall under non-federally qualified approaches than is apparent from the unweighted statistics.
- Of the 19.6 million enrollees included in plans responding to the question, 61.2% were from private employer accounts, 16.7% from state and local government accounts, and 6.9% from federal government accounts. Smaller shares of enrollment come from Medicare (5.5%), Medicaid (2.1%), self-pay (4.4%), union (1.5%), and others (1.7%).
- In total, 91.8% of enrollees were in plans that enroll small employer groups, 41.2% in plans that enroll individuals on a non-conversion basis, and 67.3% in plans that offer Medicare supplemental or wraparound products. These statistics are higher than the unweighted figures, as larger plans were more likely to offer these options.
- In terms of diversification and response to employer pressure, 62.6% of enrollees were in plans that had or were developing agreements with other HMOs to address the needs of national accounts or employers who wish to offer HMO options under a single umbrella. The percentage of enrollees in plans offering various diversification options are generally lower or the same as those computed on an unweighted basis.

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I. INTRODUCTION

This report, volume 1 of a three-volume series, provides a statistical profile of and detailed information on the current characteristics of the Health Maintenance Organization (HMO) industry; it is based on the fifth Annual HMO Industry Survey of the Group Health Association of America, Inc. (GHAA). The three volumes are

1. Benefits, Premiums, and Market Structure in 1990 (this volume)
2. Physician Staffing (1990) and Utilization Patterns (1989)
3. Financial Performance in 1989

Trend analyses are incorporated into each volume, as well as selected special topics collected on a periodic rather than annual basis.

This volume includes information on the range and structure of benefits offered by HMOs, the premiums charged, and the methods by which premiums are set. Selected aspects of market structure, including the kinds of accounts from which enrollment is drawn and HMO efforts to diversify into related areas, also are covered. Information on HMO perceptions of employer pressure for change affecting HMO structure and market position also is included. A special analysis is also included this year, presenting summary statistics weighted by plan enrollment.

For readers who desire survey highlights, key findings follow the acknowledgments. The text reviews and discusses the survey findings. The final section, detailed tables, addresses specific needs for statistical data on HMOs in general and by plan characteristics. To better address user needs, this year's series of detailed tables revises the regional classifications used in presenting data. It also presents data separately for HMOs owned by multistate organizations and others.

All tables report separately and in aggregate results for established plans (over 3 years old) and for new ones (3 years old or less). The characteristics of the established plans are emphasized in this report. The detailed tables can be used for reference on statistics cited. These tables also serve as a source of data on all responding plans and give breakdowns by plan characteristics and plan age.

As the HMO industry has grown and diversified, the demand for data on it has increased. The most recent GHAA data indicate that 569 HMOs enrolled 36.5 million Americans in 1990.[1] One in seven Americans is enrolled in an HMO, and this number is likely to grow considerably within 10 years.[2]

GHAA, founded in 1959, is the oldest and largest national association representing prepaid, managed health care systems. The GHAA Annual HMO Industry Survey was initiated five years ago as one of several strategies designed to address the need for information on the industry as it grows and evolves. This survey represents the most comprehensive recent effort to examine characteristics of HMOs.

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1. Group Health Association of America, *Patterns of HMO Enrollment (1991 Edition)* (Washington, D.C., 1991). The statistics are as of December 31, 1990.

2. Actual enrollment percentages vary widely by geographical areas. Nationally, HMO enrollment includes 15% of the population of the United States and over 17% of covered lives *(Ibid.)* Market penetration varies widely by geographic area; 22% of individuals in the largest metropolitan areas were enrolled in an HMO in 1990. *(Ibid.)*

Projecting future trends is difficult, and differing estimates have been made. Kenneth Abramowitz of Sanford C. Bernstein and Company has estimated that 28% of the private pay population would be in HMOs by 1994 and 40% by 2000. Kenneth S. Abramowitz, *The Future of Health Care Delivery in America* (New York: Sanford C. Bernstein and Company, Inc., 1990, p.34). More conservative estimates have placed HMO enrollment in 1995 at 20%-30% of the population. Karen Davis et al. *Health Care Cost Containment* (Baltimore: Johns Hopkins University Press, 1990). These estimates are based on an Arthur D. Little study predicting 25%-30% enrollment and an Alex Brown and Sons estimate predicting 20%-25% enrollment.

II. OVERVIEW OF METHODS

Data Source and Methods

The fifth Annual HMO Industry Survey was a mail survey sent to all HMOs listed in the *GHAA National Directory of HMOs, 1990*, which includes all HMOs, regardless of type or GHAA membership status. The survey was restricted to those plans operational on or before January 1, 1989.[3] The lengthy questionnaire covered a variety of topics, including plan characteristics, benefits offered, premium rates and rate-setting methods, enrollment and utilization, membership profile, data capabilities and employer data requests, diversification, physician staffing profile, and financial performance.

The questionnaires were mailed in mid-April 1990; a postcard was sent as a reminder to respond a month later, and a second mailing to HMOs that had not responded took place three weeks later in the second week of May 1990. In late June 1990, personalized follow-up letters were sent to all nonresponding plans that had responded to previous surveys; some telephone calls for follow-up were also selectively made.

Responding plans were assured of the confidentiality of individual plan data. Most questions referred to status as of March 31, 1990. Utilization and financial statistics were requested for 1989 because plans can most readily provide these on a calendar year basis. Survey execution and content was generally consistent with prior years; as usual, some change in content was made to reflect new needs or the collection of information requested on a periodic basis (e.g., data capabilities).[4] In presenting data by plan characteristic, this year's Profile also introduces changes in the regional classifications used, and a new plan characteristic, "multistate organization," to assist in considering ownership, as noted in the "Guide to Using Detailed Tables."[5]

The survey was sent to 567 of the 591 plans listed in the *Directory*. Of the 24 plans not sent surveys, 18 were excluded because their operational dates were after January 1, 1989, and 6 were excluded for other reasons.[6] Once the survey was underway, an additional 15 plans were eliminated from the sampling frame based on information received. In most cases, this was because the responding plans indicated that component plans surveyed were more appropriately aggregated as a single plan; in one case, a plan was not an HMO in the traditional sense. The net impact of these changes was that 552 plans were considered in identifying the level of response to the survey.[7]

Response Analysis

A total of 372 plans responded to the survey. The Appendix contains a listing of these plans. Overall, respondents to the survey represent 67.4% of all plans operational in 1989; their 28.0 million members include 80.9% of all enrollees in HMOs in the United States at year end 1989.

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[3] This was done because very young plans may not be sufficiently established to provide meaningful responses to a number of the items covered in the survey (e.g., utilization and financial performance) and their structures may not be very stable. In addition, we wished to reduce the administrative burden on these very young plans. Although this criterion eliminated a number of plans, the HMO enrollment in these plans is small. We did not feel that omitting these plans would detract from the ability to generalize to the HMO industry.

[4] An April collection date allows for the most current utilization and financial reporting feasible. Because the majority of contracts renew in January, the largest shifts in plan benefits, premiums, and market structure activities occur then. Data for March 31st is probably reasonably representative of the calendar year.

[5] The regional classifications used continue to be based on the eight-category U.S. Census classifications, but the categories have been regrouped so that the states in regions combining more than one U.S. Census category are more geographically homogeneous in ways likely to influence HMO performance. In addition to the noted changes, the *Profile* this year combines independent plans with those of "other" ownership because the latter represent only a small number and, in our opinion, would be most similar to independent plans.

[6] Of these other 6, 2 were eliminated because they were not geographically distinct from other included plans, 2 because they were no longer in business, and 2 because they were listed twice in GHAA's *National Directory of HMOs* to address the needs of users of that document.

[7] In a few cases, responding plans submitted more aggregated statistics on utilization and financial statistics. These were allowed when the consolidation appeared consistent with survey intent; inconsistent mergers (e.g., HMO with PPO data) were not allowed.

Appendix Table A-1 includes a tabular display of response rates for various types of plans, based on year end 1989 information included in *GHAA's National Directory of HMOs*, 1990, which was the source used in identifying plans surveyed. General findings and patterns of results are summarized here.

Response rates to the survey were higher for established plans (those operational for over 3 years) than new plans (those operational for 3 years or less). Although the differences were less than in prior years, 70.2% of established plans responded versus 52.8% of new plans. With the maturation of the industry, 83% of all plans surveyed in this cycle—and 96% of the enrollees in these plans—were in the established plan category based on year end 1989 data. As a result, statistics for these plans are reasonably representative of the typical experience of most HMO enrollees.

Within established plans, response rates were generally good for all plan types; 60% or more of all plans responded in each plan characteristics category that was able to be examined based on *Directory* data, suggesting that responding plans are reasonably representative. However, the level of response did vary somewhat by plan characteristic. The largest differences were in response rates for federally qualified plans versus others (77% versus 60%) and for GHAA member plans versus others (79% versus 61%). Response rates also were higher for plans with 8 or more years operational experience than for younger ones; over three-quarters of the former responded while 65% of the plans 4-7 years old responded; response rates also increased with plan size, and were lower for IPA model plans (63%) than others. Some of these patterns could be attributable to the interrelationship of plan age and other plan characteristics.

Because older and larger plans were somewhat more likely to respond to the survey, responding plans represent a larger share of the national HMO enrollment than share of plans. Responding plans represent 80.9% of the total enrollment of surveyed plans, and 82.0% of all enrollees in established plans at year end 1989. The responding new plans include 54.5% of the national enrollment in new plans with one year's operational experience or more. The lower response rate for new plans is probably related to the intensive organizational efforts needed at the initial operational stage.

Item response for most questions included in this volume of the survey was fairly complete, although the number of plans that responded on each item varied. Responses to items requesting premium rates and employer contribution data were lower than for other items.

The number of responding plans included in the analysis of each item is shown on the table for that item; in some cases, this is less than the total number of respondents to that item. This is because some analyses required that plans have complete data on several items (e.g., premiums for 2 years to compute increases; both premium and employer contribution to compute the percentage of employer contribution). These omissions also result in some minor inconsistencies across the same statistics in different tables.

Comparison of Respondents to Last Year's Survey

Response rates were higher to this year's survey than to last year's survey, reflecting the institutionalization of the survey process and its growing support in the industry. Among established plans that are the focus for the analysis, the response rate has increased from 44% to 55% to 63% to 70% over the past 4 years. (For all plans, the 67% response rate for all surveyed plans this year compares to 58%, 45%, and 33%, respectively, for the 1990, 1989, and 1988 editions of the *Profile*.)

As response rates have improved, those responding also have become more representative. This increases the ability to generalize from the survey. Historically, it also has made comparisons of year-to-year changes more difficult, particularly for those items that vary considerably by plan characteristic. The differences in respondents across the survey years should continue to be considered in analyzing changes in year-to-year responses. However, because response rates have been fairly high for the past 2 years, differences in respondents should present less of a problem in comparing the current survey to last year's than they have in the past. However, changes in response still need to be considered, particularly for topics in which plan statistics vary by characteristics associated with the improvements in response.

Of the 372 plans used in this year's analysis, 264 were included in the 332 plans responding last year, or 80%. This probably understates the overlap across years because of industry consolidation and the difficulty of tracking plans of changing ownership. A greater degree of overlap also is likely for established plans, because their response rates to the survey have been higher.

Analytical Techniques and Survey Limitations

The GHAA Annual HMO Industry Survey provides the most comprehensive and detailed source of information currently available on the HMO industry; nonetheless, there are limitations that should be recognized in interpreting the data.

Response rates and patterns should be considered in interpreting the results and generalizing to the industry. Because their response rates are higher and also because they include the vast majority of HMO enrollees, established plan statistics are emphasized in the text and shown separately from the "all plans" figures in the detailed tables.[8] These statistics are likely to be most adaptable to generalization.

While statistics by plan characteristics are informative, the reader should exercise caution in drawing inferences on causality. Many plan characteristics are interrelated, and other factors also may influence plan performance. Additionally, small differences in statistics for categories of respondents should generally be overlooked because they may easily represent random variation.

Because the responding plans are not identical, caution should be used in comparing data across surveys of different years, as noted previously. Because trend analysis is of critical importance, some questions on change were included in this year's survey to assist in identifying trends through the cross-sectional data. In addition, analysis is included on changes within the subset of plans commonly responding across years. Although these subsets provide a less generalizable industry-wide estimate for any given year than the full set of plans responding that year, the subset statistics are a clearer indication of change within a cohort of plans and can be used to validate trends apparent from the cross-sectional comparison across years.

Finally, the design of most included analysis uses the individual HMO as the unit of analysis rather than weighting plans by total enrollment. The approach used allows a characterization of the industry as reflected in its individual plans, which was the reason it was selected over a weighted analysis. This was felt to be particularly useful because the industry is undergoing changes. Although the approach taken is desirable in a number of ways, it does not necessarily show the average experience for an individual enrollee in an HMO because a disproportionate number of enrollees are in the larger plans.

The statistics in Table 1, which show the distribution of enrollees across responding plans, can be used to identify the ways that specific findings are likely to affect the experience of individual HMO enrollees. For example, although findings for plans 16 years old or older apply to only 14.8% of all responding plans, these plans include 41.6% of all enrollees in responding HMOs. The reader can estimate how a particular statistic translates into the average experience of HMO enrollees by weighting the statistics given for each plan characteristic by the share of the total HMO enrollment represented in plans of that type.

To better address the needs of users interested in the average enrollee experience, this volume of the *Profile* includes a special analysis (Section VIII) with weighted statistics on a number of variables of interest.

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[8] Although statistics are presented for plans in operation 3 years or less, this year's report does not break these down by plan characteristic. This is because of the relatively small number of total plans included in the group this year (i.e., 16 for the tables in this volume that are based on 1990).

III. CHARACTERISTICS OF RESPONDING PLANS

This section summarizes the major characteristics of responding plans. An overview of characteristics is presented first, followed by a brief comment on some of these characteristics.

Overview of Plan Characteristics

Table 1 presents data on the distribution of responding plans and enrollees among plans of different characteristics. Characteristics of established plans (those operational for over 3 years) are discussed first, followed by those of new plans (those operational for 3 years or less).[9]

Plans Operational for Over 3 Years

Of the 372 responding plans, 356 had been operational for over 3 years. These 356 plans had a total enrollment of 28.0 million persons as of March 31, 1989.

Fifty-nine percent of plans operational for more than 3 years are IPAs, with the remainder spread relatively evenly among staff, group, and network model plans. However, group model plans are larger on average and have approximately the same share of enrollment as IPAs (34.6% versus 36.5%, respectively). Two-thirds (64.3%) of the established plans are federally qualified. Sixty-three percent are for-profit, and 36.8% are nonprofit.

The median enrollment for established plans was 31,840 members as of March 31, 1990; the mean was 78,527. Most plans are at the younger end of the age distribution (55% are 4 to 7 years old), but enrollees are disproportionately distributed in the older plans. Forty-two percent of enrollees in established plans are in the 15.4% of plans operational for 16 years or more; 28.0% of enrollees are in the 14 responding plans that were 26 years old or older. Because 69.8% of all enrollees in established plans are in plans with 100,000 members or more, users may be particularly interested in statistics for these larger plans when they wish to understand the typical enrollee experience.

Plans are located nationwide, but are most concentrated in the Midwest (30.6%). The largest number of enrollees are in Pacific plans (34.5%). Ownership varies considerably, with 39.1% owned by Blue Cross-Blue Shield organizations or commercial insurers, 23.9% independently, 20.4% by providers, and 13.2% by national HMO organizations (3.4% are owned by others). In total, 41.0% of established plans are part of multistate organizations and 59.0% are not; enrollees are about evenly split between both types of plans.

Exhibit 1 shows the number, average age, average enrollment, and percentage of federally qualified and nonprofit plans by both model and ownership. This exhibit is helpful in interpreting statistics presented in this volume, as it provides information on the relationships among plan characteristics that can be used in interpreting results.

As shown in the exhibit, IPA model plans are smaller than plans of other model types, have a younger average age, and also are less likely to be organized on a nonprofit basis. Model type and ownership also are interrelated, with provider-sponsored plans, Blue Cross and Blue Shield-sponsored plans, and commercial insurer-owned plans having a higher proportion of IPA model plans than independently owned plans or plans owned by national HMO organizations. These latter two types of plans also tend to be larger and older than other plans.

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[9] For this purpose, the years in operation are computed based on plan reports of the date they became operational; any year in which a plan was operational for part of the year is considered a full year. For simplicity, all plans with an initial year of operation in 1988 or later are considered to have 3 or fewer years in operation for analyses in this volume based on March 31, 1990. The remainder are considered as "established." This approach may understate the number of new plans since the 1989 data are for March of that year. Because the HMO industry is maturing, an increasingly smaller proportion of all respondents are new plans.

Exhibit 1
Distribution and Selected Characteristics of Plans by Model and Ownership, Plans Over Three Years Old, 1990

Measure	**All Plans**	**Predominant Model** **Staff**	**Group**	**Network**	**IPA**
NUMBER OF PLANS	356	44	55	47	210
Mean Enrollment	78,527	87,585	175,773	91,160	48,556
Median Enrollment	31,840	43,137	55,337	38,077	25,732
Mean Age	9.4	17.4	13.5	9.3	6.6
% Federally Qualified	64.3	70.4	89.1	57.4	58.1
% Nonprofit	36.8	63.6	47.3	51.1	25.2

			Ownership		
	Blue Cross-Blue Shield	**Commercial Insurer**	**National HMO Company**	**Independent**	**Provider**
NUMBER OF PLANS	53	86	47	97	73
Mean Enrollment	61,128	32,915	218,512	81,041	51,426
Median Enrollment	44,000	20,964	98,816	33,778	31,160
Mean Age	8.8	7.2	13.7	11.4	6.7
% Staff	7.5	5.8	6.3	28.9	5.5
% Group	7.5	22.1	36.2	8.2	9.6
% Network	18.9	5.8	14.9	19.6	8.2
% IPA	66.1	66.3	42.6	43.3	76.7
% Federally Qualified	62.2	76.7	87.2	55.7	47.9
% Nonprofit	43.4	1.2	61.7	66.0	34.2

Source: GHAA's Annual HMO Industry Survey

Plans Operational for 3 Years or Less

Plans operational for 3 years or less (new plans) account for only 4% of the respondents to the survey and 1% of the total enrollment of all the respondents. In comparison with established responding plans, the new plans are considerably more likely to be networks or IPAs (81.3%), for-profit (87.5%), and non-federally qualified (68.8%). The median enrollment was 10,500, with 81.3% of plans having fewer than 20,000 members and only 12.5% of plans having 50,000 members or more. (The mean enrollment was 17,937.)

Comment on the Nature of Various Plan Characteristics

HMOs are complex organizations. As a result, any method of classification results in some simplification. In considering plan characteristics, readers should be aware that some plans use a mix of HMO models, obtain federal qualification for some service areas only, and have complex ownership patterns.

In its analyses of plans, GHAA bases results on the predominant model types, asking plans to determine which definition among four choices—staff, group, network, and IPA—best describes their plan.[10] However, plans may have multiple types of arrangements with physicians to develop a provider network appropriate to the service area of the plan and its characteristics. These arrangements could result in the use of plan components representing a variety of HMO models.

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[10] The following definitions are used in the GHAA Annual HMO Industry Survey: (1) staff, an organized prepaid health care system that delivers health services through a salaried group that is employed by the HMO unit; (2) group, an organized prepaid health care system that contracts with one independent group practice to provide health care services; (3) network, an organized prepaid health care system that contracts with two or more independent group practices to provide health services; and (4) IPA, an organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations or physicians in independent practice, and/or with one or more multispecialty group practices (but predominantly organized around single solo-specialty practices) to provide health services.

Exhibit 2 provides information on the extent to which plans use a variety of model components in structuring their delivery systems and how these vary by model type. Twenty-four percent of established plans (25.0% of new plans) have components in their plans reflecting other than their predominant model type. Staff model plans are most likely to use such components (59.1%), followed by network model plans (48.9%). Group model plans and IPAs are least likely to use them (20.0% and 12.0%, respectively). Of plans using mixed models, approximately two-thirds to three-quarters of their enrollment is included in the predominant model type on average. To better understand how provider networks are structured in HMOs, this year's survey asked plans specifically about the types of practices with which they were affiliated (e.g. size of physician group). These results are analyzed in volume 2 of the *HMO Industry Profile*.

Federal qualification may also be handled diversely within a single plan, with plans federally qualified in some service areas and not others. Of the 58.1% of federally qualified plans, 41.9% were federally qualified in all service areas and 16.2% in some service areas. Of the 31.3% of new plans federally qualified, all were qualified in all service areas.

Exhibit 2
Extent of Use of Mixed Model Plans, Various Measures by Predominant Model Type, Plans Over Three Years Old, 1990

		Predominent Model			
Measure of Mix	**Total**	**Staff**	**Group**	**Network**	**IPA**
Component Other Than Predominant Type (All Plans)					
% Yes	24.0%	59.1%	20.0%	48.9%	12.0%
(Number of Responding Plans)	(354)	(44)	(55)	(47)	(208)
Distribution of Enrollment by Model (Mixed Plans Only)					
Staff	26.5%	77.4%	3.7%	4.6%	5.0%
Group	16.6	3.5	67.5	12.8	10.7
Network	25.0	10.3	10.0	63.0	10.5
IPA	31.9	8.8	18.7	19.6	73.8
(Number of Plans)	(83)	(25)	(11)	(23)	(24)

Source: GHAA's Annual HMO Industry Survey

IV. BENEFITS AND COVERAGE

This section provides analysis of the benefits offered by HMOs, the extent to which patient payment requirements or limits are applied to these benefits, and, for selected benefits, a more in-depth description of their structure. In addition, information on transplant coverage is presented, as is an analysis of trends both for benefits in general and for transplants.[11]

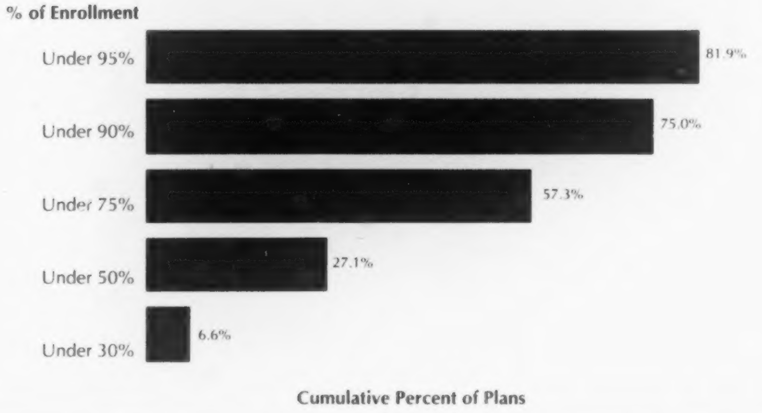
With the exception of transplants, all information on benefits refers to the plan's best-selling benefit package. "Best-selling" was defined as the benefit package to which the largest proportion of the plan's enrollees subscribe.[12] Packages specifically developed for Medicare or Medicaid enrollees were excluded.[13]

On average, two-thirds (66.0%) of an established plan's enrollment was covered by the best-selling package.[14] In all but 27.1% of plans, 50% or more of the enrollment was enrolled in the best-selling package (Figure 1). Forty-three percent of plans enrolled 75% or more of their membership in the best-selling package, and 25% enrolled 90% or more.

To provide context, plans were asked to compare their best-selling package to others they might offer. Nine percent (8.9%) said they offered no packages other than the one described as their best-selling package; 7.3% said their other benefit packages were more comprehensive than their best-selling package; 44.4% said they were less comprehensive than the best-selling package; and 39.3% said they were a combination of the two. Hence,

Figure 1

Percentage of Enrollment in Best Selling Package, Cumulative Distribution of Plans, Plans Over Three Years Old, 1990



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[11] Information on benefits was obtained through structured questions in the survey; plans were not asked to provide the written materials used for marketing or contractual purposes.

[12] Plans were asked to consider benefits (e.g., prescription drugs) covered if they were included in riders typically (i.e., at least 50% of the time) purchased with the best-selling package.

[13] This was done because the structure of benefit packages for Medicare and Medicaid enrollees may differ considerably from commercial packages. Plans with a best-selling package that was either Medicare or Medicaid were not asked to complete benefit items (except for transplant coverage items, which are based on all benefit packages offered). In total, 28 (24 established plans) plans fell into this category.

[14] This value applies both to the average or mean percentage of a plan's enrollment in the best-selling package and to the median among plans. There are no clear patterns of change over time. Compared to 1990's value of 66.0%, the average in 1989 was 70.4% and the average in 1988 was 67.5%. Because these are small changes, show inconsistent results, and are based on a growing number of responding plans, it is not possible to determine how the percentage enrolled in the best-selling package may be changing over time.

than their best-selling package, and 47% offered at least one more comprehensive package.[15]

Coverage of Benefits

Exhibit 3 provides an overview of the coverage of selected benefits in the best-selling package offered by established plans in 1990. Under the federal HMO Act, federally qualified plans are required to cover a set of basic benefits, generally with few limitations (other than medical necessity) and restrictions on the extent and nature of cost sharing allowed.[16]

Sixteen of the 34 benefits asked about in the survey are subsumed under the HMO Act definition of basic benefits. These basic benefits are: primary care visits, outpatient laboratory and outpatient x-ray, prenatal care, well-baby care, emergency care, hospitalization, home health care, outpatient mental health care, drug and alcohol detoxification, physical therapy, inhalation therapy, speech therapy, hearing tests, vision tests, and occupational therapy.

Although only 64.3% of established plans were federally qualified, virtually all plans (99% or more) covered 11 of these benefits, with almost all plans (90%-98%) covering the remainder. An exception was occupational therapy, which 87% of the plans covered. Exhibit 3 summarizes the type of coverage provided for each of these benefits; greater detail is included in Table 2. Patterns of coverage were generally similar for federally qualified and nonqualified plans, although the former were more likely to cover those benefits for which variation existed (Table 3).

The best-selling benefit packages offered by HMOs also included other benefits (Table 4). Almost all (90%-98% of plans) covered allergy treatment, skilled nursing care, prescription drugs, and inpatient mental health care. In addition, HMOs usually (65%-89% of plans) covered dental services for accidental injuries, drug and alcohol rehabilitation services, hospice services, external prosthetics, podiatry, and durable medical equipment. Chiropractic services and TMJ services were sometimes covered, with about half the plans including these in their best-selling package. Less frequently covered (fewer than 25% of plans) were preventive and restorative dental care, eyeglasses, in vitro fertilization, hearing aids, and cosmetic surgery.

As with basic benefits, federally qualified and non-federally qualified plans were similar in their coverage of other benefits, and the differences showed no consistent patterns (Table 5).

Description of Coverage for Selected Benefits

To provide a better understanding of HMO benefit package design, plans were asked more detailed information about the limits and nature of cost sharing for a number of specific benefits. Tables 6 through 8 provide additional information on primary care visits, hospitalizations, prescribed drugs, outpatient mental health, inpatient mental health, alcohol and drug detoxification, and alcohol and drug rehabilitation services. Table 6 summarizes the differences by plan characteristics in cost sharing for primary care visits and hospitalizations. Tables 7 and 8 summarize the nature and extent of limits and cost sharing for each of the seven noted benefits.

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[15] The Annual HMO Industry Survey has focused on the best-selling package to expedite data collection that otherwise could be cumbersome. Because the best-selling package applies to most HMO enrollees, it provides a good reflection of overall coverage. However, it is possible that current efforts to respond to employer pressures and concerns are leading HMOs to introduce new benefit packages or changes outside the best-selling package. To the extent this occurs, trends may be more difficult to detect using only data from the best-selling package. Although continued collection of data on the best-selling package is essential to the Survey's trending ability, in the 1991 survey we are testing some additional items that provide a more broad-based perspective on benefits and trends.

[16] Under the federal HMO Act, federally qualified plans are required to provide a number of benefits with no limits except as explicitly noted in the law. Required benefits include physician and referral services by a physician; outpatient, inpatient, and short-term rehabilitation services; physical therapy (60 days); emergency services (in and out of area); 20 outpatient mental health visits, detoxification services for alcohol and drug abuse or addiction; diagnostic laboratory and diagnostic and therapeutic radiologic services, home health services; and preventive health services, infertility services, well-child care, periodic health evaluations, eye and ear examinations (under age 18), and immunizations. Copayments for an individual service may not exceed 50% of the cost of providing the service nor in aggregate more than 20% of the cost of providing all basic health services. Total copayments for an individual subscriber (or member) may not exceed 200% of the annual HMO premium cost. Deductibles for basic benefits are prohibited, except as allowed under the HMO Act Amendments of 1988 when applied to the offering of "open-ended options."

Exhibit 3
Overview of Coverage of Selected Benefits In Health Maintenance Organizations, Plans Over Three Years Old, 1990[1]

Virtually always covered (99 percent or more of plans)	
Primary care visits (100 percent)[2]	Typically no limits: 72 percent charge copayments
Outpatient laboratory (100 percent)[2]	Typically no limits or copayments (16 percent have copayments)
Outpatient x-ray (100 percent)[2]	Typically no limits or copayments (16 percent have copayments)
Prenatal care (99 percent)[2]	Typically no limits; half charge copayments
Well baby care (99 percent)[2]	Typically no limits; 56 percent charge copayments
Emergency care (100 percent)[2]	Typically no limits; 83 percent charge copayments
Hospitalization (100 percent)[2]	Typically no limits or copayments (23 percent have copayments)
Home health care (100 percent)[2]	57 percent have no limits or copayments; the rest vary
Outpatient mental health care (99 percent)[2]	Typically with limits and copayments (12 percent have limits only)
Drug/alcohol detoxification (99 percent)[2]	No clear pattern; 59 percent have limits and 42 percent copayments
Physical therapy (100 percent)[2]	81 percent have limits; half have copayments
Almost always covered (90-98 percent of plans)	
Allergy treatment (97 percent)	Typically no limits; 59 percent have copayments
Skilled nursing care (98 percent)	Over half of plans have limits; copayments are rarer (18 percent)
Inhalation therapy (96 percent)[2]	43 percent have no limits or copayments; the rest vary
Prescription drugs (96 percent)	Typically with copayments; sometimes with limits
Hearing tests (90 percent)[2]	One third have no limits or copayments; copayments more common than limits
Speech therapy (92 percent)[2]	Usually with limits; sometimes with copayments
Vision tests (90 percent)[2]	No clear pattern on benefit structure; copayments more common than limits
Inpatient mental health care (94 percent)	Almost always with limits; sometimes with copayments
Usually covered (65–89 percent of plans)	
Dental/accidental injury (84 percent)	Two-fifths cover without limits or copayments; others vary
Occupational therapy (87 percent)[2]	Usually with limits; sometimes with copayments
Drug/alcohol rehabilitation (78 percent)	Typically with limits; 62 percent have copayments
Hospice (82 percent)	No clear pattern; limits more common
External prosthetics (84 percent)	No clear pattern on benefit structure
Podiatry (77 percent)	No clear pattern on benefit structure
Durable medical equipment (84 percent)	No clear pattern on benefit structure
Sometimes covered (25–64 percent of plans)	
Chiropractic services (50 percent)	39 percent cover with no limits or copayments; the rest vary
Temporomandibular joint treatment (46 percent)	No clear pattern on benefit structure
Least frequently covered (0–24 percent of plans)	
Preventive dental care (16 percent)	No clear pattern on benefit structure
Eyeglasses (23 percent)	Typically with limits, with or without copayments
In vitro fertilization (16 percent)	Two thirds have copayments; half have limits
Restorative dental care (12 percent)	No clear pattern on benefit structure
Hearing aids (18 percent)	Usually with limits; sometimes with copayments
Cosmetic surgery (9 percent)	Usually with limits; sometimes with copayments

1. Based on best-selling package (exluding Medicare or Medicaid) including riders typically purchased with package. Descriptions of benefits are based on responses indicating whether or not the amount of service or dollar expenditure is restricted, and whether or not any patient co-sharing is required. Statistics are for March 31, 1990.
2. Required coverage for federally qualified plans under the HMO Act. Vision and hearing tests are only required for children through age seventeen.

Source: GHAA's Annual HMO Industry Survey

The pattern of coverage for these seven benefits is reviewed in this section. The benefits were selected because they contribute to a considerable share of plan expenditures, are diverse in nature, and have been the focus of substantial interest and queries. To better identify trends, most of these benefits have been tracked over time, with others added on a rotational basis. (Users interested in skilled nursing care and home health services should refer to the 1990 edition of the *HMO Industry Profile*, which also included more detail on how HMOs deliver pharmacy benefits.)

Because this section of the report covers a variety of detail not easily incorporated into tables or graphical displays, it contains more statistics than other sections of the report. Although an effort has been made to summarize key points, the section also is designed to serve as a reference and, hence, may be more cumbersome to review than other sections of the report.

Primary Care Visits and Hospitalizations

Primary care visits were covered by all plans responding to the survey, with virtually none (0.3%) limiting the number of visits. Seventy-two percent of established plans had some form of cost sharing. In almost all cases, this was based on a fixed dollar copayment.

A copayment means that the patient must pay a fixed dollar amount toward the costs of care; primary care copayments typically apply per visit while hospital copayments may be required per day or per admission. With coinsurance, patients pay a fixed percentage of the costs of services received. A deductible means that the patient must pay an initial specific fixed dollar amount for services received *before* premium payment is used to cover the cost; deductibles can be applied either on a calendar year basis or, for hospital care, by admission or spell of illness.

The average copayment for a primary care visit was $5.90 in 1990, with a range of $1-$25. The most common copayment was $5 (53% of plans with copayments). The other common copayments were $10 (25%), $3 (14%), and $2 (5%); fewer than 1% of plans with copayments had copayments over $10. Fewer than 2% had coinsurance requirements for primary care visits; the same percentage used deductibles.

The same benefit structure generally applies beyond primary care to other kinds of physician office visits, with 86% of plans indicating this was the case.[17] The others tended to vary copayment requirements (upward or downward) for specialists versus primary care physicians. In general, plans also were somewhat less likely to apply charges for prenatal care and well-baby visits, with 50% and 57% using them respectively; this compares to 72% for primary care visits in general. Plans also tended not to charge for associated laboratory or radiology services; about 16% of plans had patient charges for these services.

All plans responding to the survey covered *hospital care,* with fewer than 2% limiting the number of days covered and virtually none having a dollar limit.[18] In total, 22.9% of plans required a patient payment in some form for hospitalization services; others did not. Copayments were most commonly used (16.7% of plans), followed by coinsurance (6.5%); 3.1% of plans used deductibles for hospitalizations.

The average copayment for hospital services was $115 in 1990, with a range of $5-$250. The most common copayment was $100, used by 37% of plans having copayments. Other common copayments were $150 (20% of such plans), $50 (12.2%), and $200 (12.2%). Coinsurance requirements ranged from 10%-30%. The most common coinsurance requirement was 20% (60% of plans with coinsurance); the average was 18.3%. Among the limited number of plans using them, deductibles ranged from $100-$300, with $100 being most common and $200 next most common.

Variation in Cost Sharing by Plan Type. To provide some indication of how cost-sharing requirements might vary by type of plan, we examined how plans varied in their use of cost sharing for primary care visits and hospitalizations (Table 6). Although cost sharing for primary care visits was common among plans of all types, the percentage of plans using it varied con-

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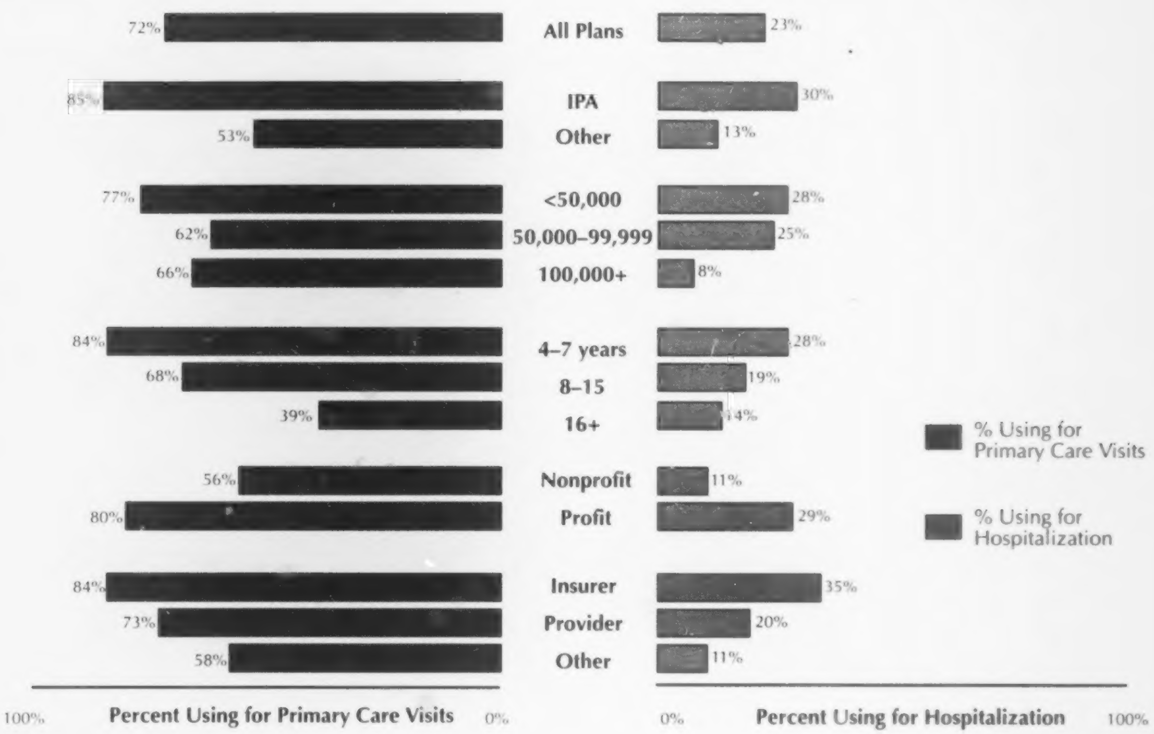
[17] The question excluded mental health visits because these were separately addressed in the survey and often subject to different limits or copayment requirements.

[18] One plan indicated a $1,000,000 limit, which probably reflects a lifetime limit. Limits for mental health and substance abuse care were separately requested in the survey and are discussed later.

Figure 2

Use of Cost Sharing by Plan Type, Plans Over Three Years Old, 1990



Source: GHAA's Annual HMO Industry Surv

siderably by plan characteristic. As shown in Figure 2, the percentage of plans using cost sharing for primary care visits was higher among IPAs, for-profit plans, smaller and younger plans, and plans owned by Blue Cross-Blue Shield organizations and commercial insurers and by providers; average copayment levels also were somewhat higher for these types of plans. Although cost sharing was less likely for hospital care, similar kinds of plans were more likely to use it.

Indemnity Comparison. Because similarly collected and comparably analyzed data from indemnity and HMO plans tend not to exist, detailed comparisons of HMO to indemnity benefits are not easily made. There are no readily available survey data on insurer practices, with almost all current data collection focusing on employer- or population-based surveys. The most detailed annual public source on this topic—the U.S. Bureau of Labor Statistics (BLS) survey of medium and large-sized employers—unfortunately has not tended to distinguish benefits for those covered by HMOs from other plans (17% of covered participants were in HMOs, with another 10% in PPOs in 1989).[19] Periodic surveys of medical expenditures that include benefit items are either out of date (National Medical Care Expenditure Survey [NMCES] for 1977) or not yet available (NMCES for 1987). However, a number of employer-based surveys undertaken by trade associations and benefits consulting firms provide some profile of indemnity coverage.[20]

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[19] Bureau of Labor Statistics, Employer *Health Benefits in Medium and Large Sized Firms, 1989* Bulletin 2363 (U.S. Department of Labor, Washington, D.C., June 1990).

The results of these surveys are consistent with common perspectives on benefit design. They indicate that, despite some limited variation within the industry, HMOs tend to provide first dollar coverage, which differs considerably from the traditional pattern of benefits in indemnity insurance. The latter tends to be structured with deductibles and coinsurance, subject to some out-of-pocket limit based solely on covered charges.

The 1989 employer survey conducted by the Health Insurance Association of America shows that the mean deductible for individuals covered by conventional insurance plans was $187 for individuals and $398 for families in 1989; virtually all applied coinsurance, most typically at 20% of charges.[21] Ninety-three percent had a maximum out-of-pocket; 27% set this below $500 and 39% at $1,000 or more. The lifetime maximum family benefit was under $250,000 for 8% of employees; it was under $1 million for 42%.

Although preferred provider plans tended to have lower amounts of cost sharing, deductibles and coinsurance also were commonly used in these plans even if preferred providers were selected. If preferred providers were used, the average deductible was $144, with all but 26% having some coinsurance requirement, most typically 10% (40% of plans) or 20% (27% of plans). For nonpreferred providers, the mean deductible was $242, with 66% charging 20% coinsurance, 9% less than that, and 25% more than that.

According to A. Foster Higgins' *1990 Health Care Benefits Survey* report on indemnity plans, 96% of responding employers had a comprehensive or base/major medical deductible; 12% had a separate deductible for hospital confinements.[22] Seventy-five percent required coinsurance for hospital inpatient services, typically at 20% of expenses. Coinsurance also was common for inpatient surgical care (80%), outpatient surgical care (64%), and physician visits (94%). Although 96% of employers set a maximum out-of-pocket limit on payments, 93% of these were at $500 or more; 27% were at $1,500 or more. These limits also typically do not apply to any costs exceeding allowable charges.

Prescription Drug Benefits

Prescription drug benefits were included in the best selling package of 96.0% of plans. A minority of plans (8.7%) applied a dollar limit to these benefits, with limits ranging from $300 to $250,000. Thirty percent of plans noted other limits. Most commonly, this referred to a 30-day supply or similar limit. The 1990 edition of the *HMO Industry Profile* contains greater detail on how HMOs structure the delivery of their pharmacy benefits.

Almost all plans (90.1%) covering prescription drugs required some patient payment in 1990. Eighty-eight percent of those covering the benefit required a fixed dollar copayment, ranging from $0.75 to $10, with an average of $4.06. The most common copayments were $5 and $3, used by 43% and 25%, respectively, of those having copayments; 14% charged $2, and 7.5% charged more than $5. Eight percent of plans covering the benefit applied coinsurance requirements, ranging from 10%-50% with an average of 28%. Nine percent used deductibles. Although the reported range was from $7 to $300, deductibles most commonly were at $50 (66%) or $100 (21%).

Mental Health and Substance Abuse Benefits

There has been considerable interest in how HMOs structure their mental health and substance abuse benefits. Of established plans responding to this year's survey, half (51.5%) said mental health and substance abuse benefits were offered as an integrated package and half (48.5%) said they were not. For ease of survey format and analysis, information on the design of these benefits has traditionally been requested separately and is therefore separately analyzed below.

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[20] Differences in the sampling frames or unit of analysis for these surveys should be kept in mind, as they differ from GHAA's, although not in ways likely to influence the general conclusions drawn. The Health Insurance of America's employer survey weights results by the profile of U.S. workers nationwide and is based on the largest indemnity, HMO, and PPO plan offered by each employer surveyed. The A. Foster Higgins survey uses the employer as a unit of analysis. However, unlike HIAA's survey, the A. Foster Higgins Survey is not based on a probability sample but is based on a sample of convenience: employers responding to requests made by 42 business coalitions across the country.

[21] Jon Gabel, Steven DiCarlo, Cynthia Sullivan, and Thomas Rice, "Employer Sponsored Health Insurance, 1989" *Health Affairs* pp. 161-175, Fall 1990.

[22] Report 1 "Indemnity Plans: Cost, Design and Funding" *Health Care Benefits Survey 1990* A. Foster Higgins and Company, Inc. Princeton, N.J. 1991.

Mental Health Services. Virtually all plans (99.4%) covered outpatient mental health benefits in their best-selling package in 1990, and almost all (94.4%) covered inpatient mental health benefits. Almost all plans also set some limit on these benefits. The typical pattern was a benefit of 20 outpatient visits and 30 inpatient days, although there was some variation, which was more likely to involve greater rather than lesser benefits.

For outpatient mental health services, 88.4% limited the number of visits covered. Limits ranged from 3-60 visits, but 85% set the limit at 20 visits and another 8% set it at 30 visits; the average was 21.9 visits. Fifteen percent of plans set a dollar limit on the mental health benefit, ranging from $20 to $2,500.[23] The most common limit was $1,000 (39% of plans with dollar limits); 39% had lower limits and 22% had higher limits. Of plans using dollar limits, 52% also had a visit limit; 48% did not.

Overall, 96% of plans limited either outpatient mental health visits or expenditures; 4% limited neither. In addition to these limits, 15.6% cited other limits on the mental health benefit. Most commonly, these plans cited restrictions based on conditions amenable to short-term treatment or crisis management, integration with substance abuse benefits, or variation in copayment structures depending on the number of visits or type of therapy.

As with outpatient mental health, limits on inpatient mental health coverage also were common. Almost all plans (93.7%) covering mental health services in an inpatient setting limited the number of covered days. These limits ranged from 5-365 days, but two-thirds (64.2%) set the limit at 30 days. Sixteen percent with day limits set limits lower than this, and 20% set higher limits. The most common other limitation periods were 20 days (8.9%), 45 days (6.0%), and 60 days (8.5%); the average of all plans using limits was 32.8 days. In addition to day limits, 19.4% of plans cited other kinds of limits. These were diverse and included dollar limits alone or in combination with day limits, lifetime or benefit period limits, and other limits similar to those noted for outpatient mental health benefits.

In providing mental health benefits, plans were likely to apply some cost-sharing requirements, particularly for outpatient services. Of established plans, 86.7% covering the benefit used cost sharing for outpatient mental health services, and 42.8% used cost sharing for inpatient mental health benefits.

For outpatient mental health services, 69.5% used a fixed dollar copayment that averaged $16 and ranged from $2-$40. There was considerable variability in the amount charged. Twenty percent of plans with a copayment charged less than $10, 18% charged $10, 10% charged $15, 34% charged $20, 15% charged $25, and 5% charged over $25. Twenty-one percent of plans had coinsurance requirements ranging from 20% (28% of those using coinsurance) to 50% (64%). Virtually none (0.6%) had a deductible for these services.

For inpatient mental health services, copayments and coinsurance requirements were both equally likely. Twenty-two percent of plans had coinsurance requirements. The range was 10% to 50%, but the most common requirement was 20% (63% with coinsurance) or 50% (24%). Twenty-one percent of plans required copayments, which ranged from $5-$200 and averaged $73. The most common amounts were $50 (27% with copayments), $100 (21%), $25 (18%), and $150 (15%). Two percent of plans used a deductible (typically $100).

Substance Abuse Benefits. Virtually all plans (98.8%) covered alcohol and drug detoxification services, and 78.0% covered rehabilitative services. As with mental health services, benefits were typically limited in amount. However, limits were considerably more likely for rehabilitation than for detoxification services, and the former also were more likely to require patient cost sharing. There also was considerably less consistency in patterns of coverage for substance abuse than for mental health benefits, indicating less consensus within the HMO industry on how the former are best incorporated within the plan's benefit package.

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[23] The plan citing a $20 figure may have been expressing this on a per-visit basis. The lowest other figure was $500. The full distribution was $500 (6.5%), $700 (10.9%), $900 (19.6%), $1,000 (39.1%), $1,400 (2.2%), $1,500 (8.7%), $2,000 (8.7%), and $2,500 (2.2%).

In covering detoxification services, 40.5% limited the number of days covered, and 14.5% limited the number of visits; 54% limited neither, although some of these had other limits (see below). Day limits ranged from 1-73, with an average of 22; practices varied widely among plans, although the most common limits were 30 days (41% of plans with day limits), 7 (12%), 5 (10%), and 3 (10%). Of the 14.5% noting a visit limit, these limits ranged from 2-60 visits and averaged 27; the most common limit was 30 (56%). In addition, 22.7% of plans noted other kinds of limits, most typically based on the number of detoxifications per period or lifetime, or on medical criteria; some limited the allowed dollar expenditure.

For rehabilitation services, 61.8% limited days and 32.7% limited visits; 26.3% limited neither, although some of these had other limits (see below). Day limits ranged from 14-90, with an average of 35. There was less variability with these than with detoxification services; the most common limit was 30 days (68% of plans with day limits). A third of the plans (32.7%) expressed their substance abuse limits in terms of visits, with a range from 1-120 and an average limit of 31 visits. The most common limit was 20 (51% with visit limits), but 30-visit (21%) and 60-visit limits (13%) were also common. Thirty-six percent of plans noted other limits on rehabilitative services for substance abuse problems. These ranged widely, reflecting the various ways plans combined day, visit, dollar, medical condition, lifetime limits, and related mental health benefit use in structuring their benefits. The design of the substance abuse rehabilitation benefit is similar to outpatient mental health benefits—not surprising, as half the plans integrate coverage for the two. However, there is more variability in substance abuse benefit design.

Forty-one percent of plans required some patient cost sharing for alcohol or drug detoxification services; the remainder did not. Copayments were most commonly used (27.0%); these ranged from $2-$200, with an average of $48. Amounts varied widely, indicating both variation in practice and differences according to whether these were keyed to visit amounts or inpatient day amounts. Twenty-nine percent using copayments charged $5 or less; 30% charged between $10 and $25; 12% charged $40-$50; and 29% charged between $100 and $200.[24] Sixteen percent of plans required coinsurance payments, ranging from 10%-50% with 20% (55% of plans using coinsurance) and 50% (29%) most common. Few plans (1.6%) had a deductible for detoxification services.

Cost sharing was more likely to be applied to substance abuse rehabilitative services than to detoxification services, with 62.1% of plans covering rehabilitation benefits requiring cost sharing. Forty-five percent used fixed dollar copayments, ranging from $2-$250 and averaging $35. Copayment amounts varied widely, partly reflecting a distribution likely to include both outpatient and inpatient copayment amounts. The most common copayments were $10 (18% with any copayments), $20 (17%), and $5 (12%). Twenty-one percent used coinsurance, ranging from 10%-50% and most typically set at 20% (52% of plans with coinsurance) or 50% (35%). Few (1.2%) plans had a deductible for substance abuse rehabilitation services.

Although comparisons of cost sharing between mental health benefits and substance abuse benefits are made more difficult because of the mix of inpatient and outpatient services used in substance abuse treatment, the results of the survey suggest that plans are somewhat less likely to require cost sharing for substance abuse than mental health benefits (particularly on an ambulatory basis), and that, when they do, the amounts charged are somewhat lower.

Comparison to Indemnity Benefits. Available data appear to suggest that HMO enrollees may be somewhat more likely to be provided a mental health and substance abuse benefit than traditional insurance carrier subscribers. This appears to apply more to outpatient than inpatient care and is more apparent for substance abuse than mental health benefits. Estimates from the Health Insurance Association of America's 1989 employer survey indicate that approximately 95%-99% of workers enrolled in HMOs had these benefits, while comparable figures for workers covered by conventional plans showed that 90% had outpatient mental health benefits, 95%

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[24] Excluded values represent amounts not used by any of the reporting plans.

had inpatient mental health benefits, 85% had drug treatment benefits, and 86% had alcohol treatment benefits; statistics were similar for workers in preferred provider plans.[25]

In structuring benefits, HMO and indemnity plans are similar in that they tend to cover mental illness and substance abuse problems differently from other illnesses.[26] In general, covered treatment for these conditions is considerably more likely to be limited, and the cost-sharing requirements are likely to be more extensive. The 1989 A. Foster Higgins survey provides some indication of the structure of mental health benefits and substance abuse services in indemnity plans.[27] These benefits can be compared with the typical HMO mental health benefit of 20 outpatient days (typically with copayments or coinsurance) and 30 inpatient days, with two-fifths of plans requiring cost sharing for mental health services.

Of employers responding to the A. Foster Higgins survey for 1989, 46% limited the number of covered inpatient mental health days in their traditional indemnity plan, with a 30-day stay being most common (41% with limits); 4% had lower limits and the rest (55%) higher limits. Twenty-eight percent of employers limited the maximum dollar expenditure per year, and 58% limited the lifetime expenditure; 35% had higher coinsurance compared to other services, most typically setting this at 20%. All but 13% of employers had some limit on the benefit. For outpatient services, 76% limited the maximum dollar expenditure per year, 65% limited the lifetime expenditure, and 62% set a higher coinsurance for outpatient services, with $2,000 the median annual limit and 50% the most likely coinsurance rate. Thirty-nine percent handled substance abuse benefits separately.

Although an actuarial analysis of equivalence would be required to directly compare the level of HMO benefits for mental health and substance abuse to those of indemnity providers, the analysis presented above suggests several points. First, there appears to be greater variability in the structure of indemnity benefits than HMO benefits; on average, indemnity insurers appear to provide more extensive inpatient coverage and perhaps outpatient coverage, but many provide equivalent or less extensive coverage. Second, patterns of cost-sharing requirements have the effect of lessening differences in benefit levels between HMOs and indemnity plans. Third, neither HMO nor indemnity benefits are structured to fully accommodate chronic care problems, given both limits and cost sharing requirements.

The preceding analysis suggests that the differences in coverage between HMOs and indemnity insurers may not be as great as some assume. On the other hand, comparisons run counter to other HMO-indemnity benefit comparisons, which typically show HMO benefits as considerably more comprehensive. One reason for the disparity may stem from the different philosophies on modalities of care between HMOs and fee-for-service providers. HMOs historically have criticized what they regard as an inpatient bias in fee-for-service treatment, pointing out that care can often be more effectively provided on an outpatient basis. It therefore is not surprising that mental health benefit differences between HMO and indemnity care are greatest with respect to inpatient care. Another likely explanation for the disparity rests in the greater uncertainty about the effectiveness and appropriateness of mental health and substance abuse services than for other types of services, which make HMOs more cautious about providing unlimited coverage, particularly with the first dollar benefits typically applied to other services.

In the future, it is possible that differences between HMO and indemnity benefits with respect to mental health and substance abuse may lessen, as there appears to be some growing concern over an emphasis on inpatient treatment in the indemnity sector, as well as over the costs of mental health and substance abuse benefits.[28] Employers are likely to become more actively involved in the design of mental health and substance abuse benefits, both in indemnity plans and in HMOs. This includes decisions on how extensive a benefit they wish to purchase and the degree and style of management they want in its delivery.

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[25] Gabel *et al.*, "Employer Sponsored Health Insurance, 1989" Health Affairs, *op cit.*

[26] Bureau of Labor Statistics *Employee Benefits in Medium and Large Firms, 1989* Bulletin 2363 (U.S. Department of Labor, Washington, D.C., June 1990). Of participants in medium- and large- sized firms, only 21% were enrolled in a plan that covered hospital care for mental health care similarly to that of other illnesses, 2% treated outpatient mental health care similarly, 43% treated inpatient alcohol detoxification similarly, 9% treated inpatient alcohol rehabilitation similarly, and 8% treated outpatient alcohol rehabilitation similarly. Drug abuse patterns were similar to those of alcohol abuse; both are somewhat understated because they are based on all participants, without adjustment for those not covered for the benefit.

[27] A. Foster Higgins "Report 5: Mental Health and Substance Abuse Benefits" *Health Care Benefits Survey, 1989* (Princeton, N.J., 1990).

Coverage of Transplants

With the considerable interest in how HMOs handle new technology, transplant coverage has been a topic that the GHAA Annual HMO Industry Survey has tracked since 1985. This is addressed in the survey by asking plans which of a list of transplants were covered in at least one of the basic benefit packages of the plan, as a rider, or on a case-by-case basis.[29]

Figure 3 profiles the results for established plans in 1990 (see also Table 9). Almost all plans covered kidney transplants (97.9%), cornea transplants (96.1%), liver transplants for children with biliary atresia and related conditions (96.1%), and bone marrow transplants (94.0%). Usually, transplant coverage was provided under at least one of the basic benefit packages of the plan rather than solely as a rider or on a case-by-case basis; coverage through a basic benefit package was somewhat less likely for bone marrow than for other kinds of transplants.

The plans varied in their handling of other kinds of transplants. All but pancreas transplants were covered by more than half the plans. Seventy-six percent covered heart transplants, 64.2% liver transplants for conditions other than those indicated before, 52.6% covered heart-lung transplants, and 38.3%, pancreas transplants.

Patterns of coverage generally were similar for federally and non-federally qualified plans (Table 10). Both federally qualified and non-federally qualified plans almost always covered the four kinds of transplants that have been interpreted as required under the federal HMO Act, but federally qualified plans were somewhat more likely to cover them than non-federally qualified plans. The largest differences were with respect to bone marrow transplants (96.8% versus 88.9%) and liver transplants for children with biliary atresia and related conditions (99.5% versus 89.8%).

For other kinds of transplants, coverage varied, with federal qualification status for some but not all. A similar percentage of federally qualified and non-federally qualified plans covered heart transplants and liver transplants for conditions other than those previously noted. Non-federally qualified plans were more likely to cover heart-lung transplants (57.9% versus 49.8%) and pancreas transplants (46.6% versus 33.7%). These last two transplant types were least likely to be covered by HMOs, indicating considerably less consensus on these technologies.

Trends in Benefit Package Design

The basic structure of the best-selling package offered by HMOs has remained stable over the past several years, with relatively limited changes in covered benefits. However, cost sharing has tended to increase, although it is still limited and generally focused on fixed dollar copayments; use of coinsurance and deductibles remains limited. A substantial number of plans also reported no changes in their cost sharing in recent years.

Overview of Trends

To expedite trend analysis, the survey asked plans to provide an overview of the changes in their best-selling package from 1989 to 1990. Plans were asked to indicate whether they viewed the benefit structure in their best-selling package in 1990 as identical to 1989 or as having minor changes, some changes, or major changes. Plans were also asked whether or not they expanded or increased benefits,

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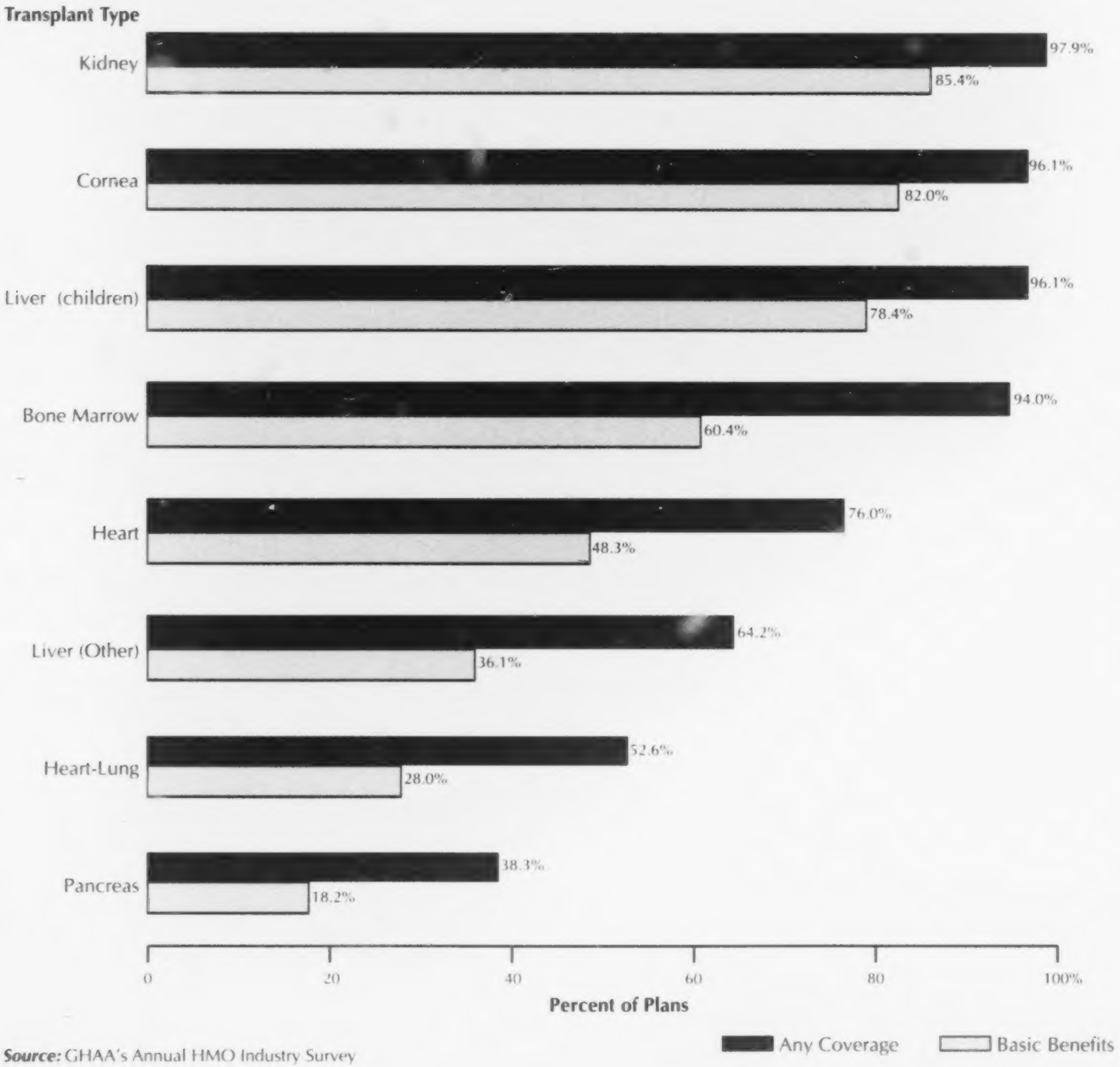
[28] For example, 62% of employers responding to the A. Foster Higgins employer survey indicated that higher mental health and substance abuse claims were a factor driving up their 1990 indemnity plan costs. This factor was the third most important one noted, behind medical price inflation (93%) and catastrophic claims (62%). Over half of employers cited outpatient care costs and prescription drug claims. "Report 1: Indemnity Plans: Cost, Design, and Funding" Foster Higgins Health Benefits Survey (A. Foster Higgins, 1991).

[29] Based on the U.S. Department of Health and Human Services' interpretation of the requirements under the federal HMO Act, federally qualified HMOs in 1990, as in 1985-1989, were required to provide coverage for four kinds of transplants: kidney, cornea, bone marrow, and liver for children with biliary atresia or other congenital conditions.

Figure 3
Transplant Coverage by Type, Plans Over Three Years Old, 1990



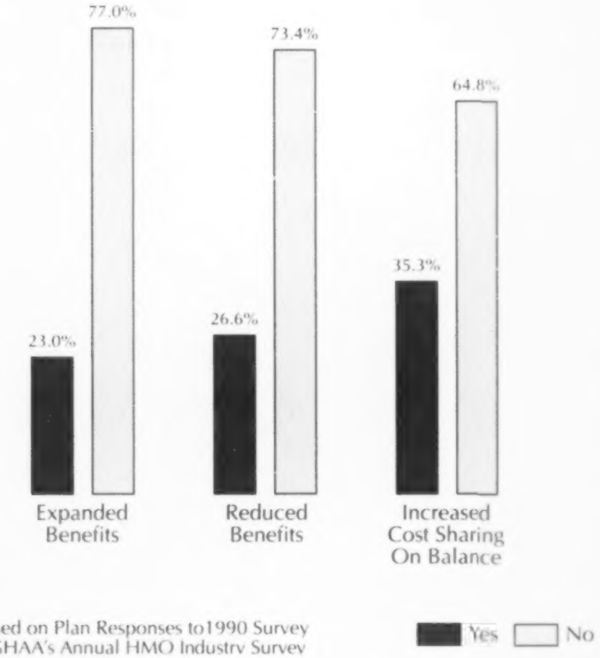
Source: GHAA's Annual HMO Industry Survey

reduced any benefits, and whether on balance the amount of patient cost sharing in the best-selling package had increased, stayed the same, or decreased in 1990 compared to 1989.

The vast majority of plans (81%) maintained basically the same benefit structure in 1990 as 1989, with 40% having the identical package and others making what they characterized as only minor changes from the year before. Seventeen percent of plans made some changes in their benefit package in 1990 and 2% said they made major changes. Twenty-three percent of plans said they expanded benefits, 27% said they reduced benefits, and 35% said they increased cost sharing on balance (Figure 4).

There was considerable variability in benefit expansions, with no overall pattern. Those expanding benefits generally noted very specific changes on particular benefits, including particular benefit addi-

Figure 4
Change in Benefits and Cost Sharing in Best Selling Benefit Package, Plans Over Three Years Old, 1989-1990



Note: Based on Plan Responses to1990 Survey
Source: GHAA's Annual HMO Industry Survey

tions, modifications in limits, reductions in cost sharing, or coverage of specific items. Expansions involving mental health and substance abuse benefits were cited most often (23% of those responding with expansions); 13% noted transplant additions or modifications. Although a small number indicated reductions in copayments, most changes noted were on particular benefits.

Those reducing benefits also cited very specific changes. About half referred to changes in cost sharing, generally in terms of copay additions or increases, but sometimes relating to the addition of coinsurance or dollar maximums. There was no particular pattern to the other examples. They tend to suggest that reductions focused on use of tighter definitions and refinements in benefits involving such areas as infertility, durable medical equipment and prosthetic devices, mental health and substance abuse, skilled nursing services, home health and rehabilitative services, pharmacy, dental, and incentives to encourage more appropriate use of emergency services. One plan noted the addition of a preexisting condition exclusion and another the addition of 50% coinsurance for preexisting conditions during the first six months of coverage.

Trends in 1990 generally were similar in direction to those identified in the 1989 and 1988 surveys. In general, most plans are keeping their best-selling benefit packages fairly constant, but a number are making some changes in the particulars of the package. The most noticeable change was in an increase in the overall amount of cost sharing in the best-selling package. The percentage of established plans indicating cost sharing had increased on balance was 44% in 1988, 41% in 1989, and 35% in 1990. Of those responding in both 1988 and 1989, 56% increased cost sharing in at least one of those years, 23% in both. Similarly, 38% increased cost sharing in either 1989 or 1990, 20% in both. Correspondingly, 44% reported no net increase in 1988 and 1989 and 42% reported no net increase in either 1989 or 1990. Of the 157 responding in all three years, 32% reported no net increase for any of the three years.

Hence, HMO benefit packages are requiring more cost sharing, but this practice is not occurring in all plans and, according to 1990 information on benefit package design, the overall amount still continues to be limited. Because it is possible that HMO efforts to respond to employer interest in greater cost sharing (see Section VI) focus on other than the best-selling package, we will collect more information on lower benefit option packages in future surveys to better assess this possibility. However, two-thirds of HMO membership was covered under the best-selling package in 1990 and this percentage has not changed much, suggesting that a major movement of enrollees to lower benefit options is unlikely to have occurred in recent years.

Comparative 1990 data on indemnity practices are limited, but the data from 1990 and previous years suggest that cost sharing also is increasing in indemnity plans, particularly through increases in deductibles.[30] Analysis of cost-sharing changes in indemnity plans is complicated by the growth of managed care plans. A number of employers may be switching to managed care products, in which cost sharing is increased considerably in the traditional indemnity component as an inducement for employees to select a preferred provider, or a point-of-service option with cost sharing either the same or lower than the previous indemnity product.

Trends in Specific Benefits

Analysis of trends in delivery of specific benefits is complex for two main reasons: (1) the variety of benefits covered and detail collected; and (2) the improving response rate to the GHAA Annual HMO Industry Survey, making it difficult to determine the extent to which year-to-year changes represent industry trends or differences in the mix of responding plans. This is particularly a problem for cost-sharing analysis because improvements in the survey response rate have come most heavily through the more representative inclusion of plans with characteristics more likely to be associated with use of cost sharing. This was more of a problem in past years than in 1990, as response rates improved most rapidly in 1988 and 1989.

To address this problem, trend information is presented in two ways in Exhibit 4. This exhibit focuses on cost-sharing trends for five benefits detailed consistently across the years. The first form of analysis is cross-sectional, based on all established plans responding to each year's survey. The second form is through paired comparisons, based on plans that responded in each of several consecutively paired years (1986-1988, 1988-1989, and 1989-1990).[31] Although the latter comparisons are less generalizable, they are useful in assessing trends because they compare the same plans over time. For estimates of 1990 industry structure, the full set of responding plans is best used, as it is the most broad-based and representative.

Exhibit 4 shows that changes in patterns of cost sharing vary by type of benefit. Of the five benefits, primary care visits were the benefit in which increases in cost sharing were most obvious. Both the percentage of plans using cost sharing and the mean amount charged increased across the years; plans continued to use fixed dollar copayments. The paired comparison data suggest that the extent of change in this area may be somewhat overstated by the cross-sectional survey data, with statistics for prior years probably understating the industry-wide use of copayments in HMOs.

Average copayments also increased for pharmacy services; the percentage of plans using these—relatively stable from 1986-1989—appears to have increased slightly in 1990; use of deductibles or coinsurance for pharmacy benefits has not changed over time. Use of cost sharing for hospitalizations also appears to have increased over time, although a minority of plans use this. Copayments tend to be most commonly used, but use of coinsurance and, to a lesser extent, deductibles is also increasing. Although the cross-sectional results suggest that more plans are using copayments for mental health benefits, these trends are not confirmed by the paired comparison data.

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[30] See A. Foster Higgins (1990) *op cit.*, Gabel et al. *op cit.*, and U.S. Bureau of Labor Statistics *op cit.*

[31] Because we began to change our data collection period in 1988, the survey does not cover 1987. Pairs of years are used rather than analysis of plans responding in all years because this latter analysis would result in a very limited number of plans being analyzed, with characteristics less likely to be generalizable

Exhibit 4

Type and Extent of Patient Cost Sharing in Best Selling Benefit Package, Selected Benefits and Measures, Cross-Sectional and Paired Comparisons, Plans Over Three Years Old, 1986–1990[1]

A. Cross-Sectional Comparisons, 1986–1990[1]

	COPAYMENTS								COINSURANCE			
	Percent Using				Mean				Percent with Coinsurance			
Type of Benefit	**1986**	**1988**	**1989**	**1990**	**1986**	**1988**	**1989**	**1990**	**1986**	**1988**	**1989**	**1990**
Primary Care Visits	37.6	47.8	60.1	71.6	4.19	4.33	5.50	5.90	0.8	1.6	1.4	1.2
Hospitalization	4.8	7.5	12.4	16.7	166.67	128.85	116.77	115.00	4.8	5.3	5.3	6.5
Pharmacy	78.1	75.4	82.2	87.5	2.78	3.29	3.90	4.06	8.6	9.8	8.6	8.4
Outpatient Mental Health	45.6	60.1	61.2	69.5	16.84	15.80	17.31	15.93	21.6	21.4	19.9	20.5
Inpatient Mental Health	8.5	12.6	15.3	21.1	95.00	60.00	200.00	73.15	12.0	19.3	17.9	22.4

B. Paired Comparisons, 1988–1989, and 1989–1990[2]

	BENEFIT TYPE				
Comparison Measure	**Primary Care Visits**	**Hospitalization**	**Pharmacy**	**Outpatient Mental Health**	**Inpatient Mental Health**
Plans Responding in Both '88 & '89 Only					
% Copay '88	50.8	8.8	73.2	61.0	12.9
% Copay '89	55.8	11.0	74.3	59.9	11.9
(Number of Plans)	(181)	(181)	(178)	(177)	(176)
Mean Copay '88	4.25	126.11	3.21	16.26	59.24
Mean Copay '89	4.64	103.89	3.62	16.57	59.23
(Number of Plans)	(87)	(9)	(119)	(89)	(13)
% Coinsurance '88	1.7	4.4	8.9	20.8	13.6
% Coinsurance '89	1.1	6.1	8.3	20.2	16.9
(Number of Plans)	(181)	(181)	(180)	(178)	(177)
% Deductible '88	0.0	1.7	12.8	0.0	0.0
% Deductible '89	0.6	2.2	13.3	1.1	1.1
(Number of Plans)	(181)	(181)	(180)	(179)	(178)
Plans Responding in Both '89 and '90 Only					
% Copay '89	60.3	12.9	81.4	64.2	17.4
% Copay '90	66.2	15.0	86.0	66.4	17.4
(Number of Plans)	(234)	(233)	(215)	(232)	(213)
Mean Copay '89	5.40	105.00	3.79	17.00	100.00
Mean Copay '90	5.57	100.26	4.14	16.17	82.14
(Number of Plans)	(134)	(19)	(160)	(123)	(21)
% Coinsurance '89	1.7	5.6	8.8	19.0	17.2
% Coinsurance '90	1.7	6.4	[illegible].3	22.0	20.4
(Number of Plans)	(234)	(233)	(215)	(232)	(221)
% Deductible '89	0.9	2.6	11.6	0.4	1.4
% Deductible '90	1.3	3.0	12.6	0.9	2.3
(Number of Plans)	(234)	(233)	(215)	(232)	(214)

Notes:

1. Results for all plans over three years old responding each year. Percentages are based only on plans covering the benefit. For information on deductible trends, see 1990 edition (These are uncommon HMOs).
2. Based only on plans responding in both the indicated years. Plan age defined by former of two years. For information on changes between 1986 and 1988, see 1990 edition.

Source: GHAA's Annual Industry Surveys.

Exhibit 5
Extent to Which Plans Cover Various Transplants, Plans Over Three Years Old, 1986–1990[1]

	Cross-Sectional Survey Results				Plans Responding in 1989 & 1990 Only[2]	
Type of Transplant	**% 1986**	**% 1988**	**% 1989**	**% 1990**	**% 1989**	**% 1990**
Kidney	96.7	97.0	98.3	97.9	97.5	97.9
(Number of Plans)	(124)	(199)	(296)	(335)	(242)	
Liver (children)	87.1	94.5	93.9	96.1	93.0	95.9
(Number of Plans)	(124)	(200)	(294)	(333)	(242)	
Liver (other)	55.6	62.7	59.0	64.2	58.5	63.1
(Number of Plans)	(124)	(201)	(295)	(332)	(241)	
Heart	69.3	72.0	72.7	76.0	69.9	77.4
(Number of plans)	(124)	(200)	(293)	(333)	(239)	
Heart-Lung	53.2	51.8	49.8	52.6	48.9	53.2
(Number of Plans)	(124)	(199)	(293)	(329)	(237)	
Pancreas	41.2	40.0	37.6	38.3	39.2	38.4
(Number of Plans)	(124)	(195)	(292)	(329)	(237)	
Cornea	93.6	94.4	96.9	96.1	97.1	96.6
(Number of Plans)	(124)	(195)	(292)	(333)	(238)	
Bone Marrow	91.1	87.9	91.8	94.0	90.0	92.5
(Number of Plans)	(124)	(199)	(293)	(333)	(241)	

Notes:

1. Includes plans which cover this in at least one benefit package, under a rider or on a case-by-case basis.
2. Includes plans over three years old in 1990. For similar analysis of 1988–1989, see 1990 edition.

Source: GHAA's Annual HMO Industry Surveys

Exhibit 5 provides similar information for assessing trends in transplant coverage. Both the cross-sectional and paired comparison results indicate little change in the percentage of plans covering various transplants between 1986 and 1990. There may have been some growth in the percent covering heart transplants between 1989 and 1990; coverage of bone marrow transplants also may be somewhat more likely. Because the survey only collects information on whether transplants are covered, it does not identify any potential trends in total number of transplants performed as medical criteria change or for other reasons.

V. PREMIUM RATES AND RATE SETTING

This section provides information on the premium rates charged by plans in 1990, the amount of employer contribution and how it is set, and changes in premiums from 1989 to 1990. The section also presents findings on the methods used by plans to establish premium rates, as well as information on trends.

Information on premium rates and employer contributions is based on the largest single account, excluding Medicare and Medicaid. Among established plans, 41% said this was a state or local government account, 36% said it was a private employer or union account, 19% said it was a federal account, and 3% some other account.

Rates and amounts are for January of the applicable year, as it is the most common month for account renewal. Sixty-four percent of plans reported January as the anniversary month for their largest single account; 17.0% reported July (Figure 5). Because approximately a third of plans renewed their accounts after January, the 1990 statistics presented won't reflect all changes made throughout 1990, but, instead, a mixture of 1989 and 1990 experience. This is consistent with prior years' reports.

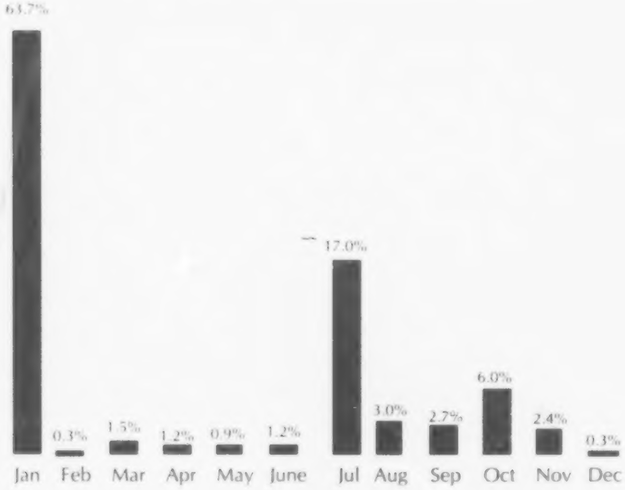
Unless otherwise specified, the figures cited are for established plans.

Premium Rates and Employer Contributions

In 1990, the mean monthly premium for a single contract in the largest account was $119.74; for a family contract it was $315.18 (Exhibit 6).[32] The employer paid an average of 87.3% of the premium for a single contract and 77.0% for family contracts (see Tables 11 and 12 for statistics on premiums and

Figure 5

Anniversary Month of Largest Single Account, Plans Over Three Years Old, 1990



Note: Excludes Medicare and Medicaid Accounts
Source: GHAA's Annual HMO Industry Survey

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[32] These averages are based only on plans reporting both premium and employer contribution. The average monthly premium in 1990 for all reporting established plans was $118.16 for single contracts and $313.80 for families.

Exhibit 6
Employer and Employee Contributions to Monthly HMO Premiums, by Type of Contract, Plans Over Three Years Old, 1990

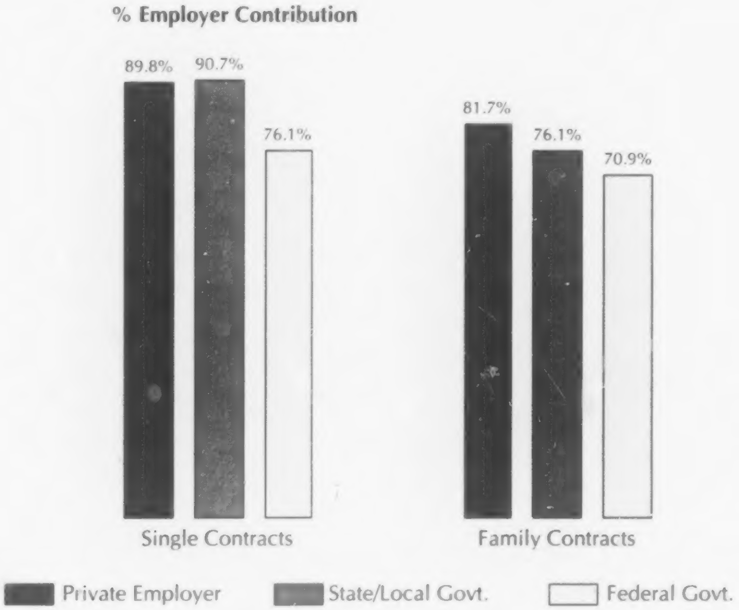
Type of Contract*	Employer Contribution		Employee Cost	
	Premium	Amount/Month	Percent	Amount/Month
Single	$119.74	$104.08	87.3%	$15.66
Family	$315.18	$241.54	77.0%	$73.64
Couple	$255.18	$199.83	78.6%	$55.35
Parent & Child	$234.08	$179.80	77.1%	$54.28

* Plans vary in the number of rate tiers. Under half have separate rates for couples, and parent and child distinct from family rates.
Source: GHAA's HMO Industry Survey

employer contributions by plan characteristic). This means that, on average, the employee paid $15.66 per month for self-only coverage, and $73.64 per month for family coverage.

Employer contribution policies and practices vary. For single coverage, 37.6% of plans reported that the employer paid the entire premium; 22.1% paid the entire premium for family coverage; and the rest required some contribution. In 15% of plans, employees were required to pay over half of the family premium. Compared to private employers, the Federal Employees Health Benefits Program contributed a substantially smaller percentage of the premium, both for single and family contracts. State and local governments paid less for family coverage, although not for single coverage (Figure 6; see also Table 13). National data from surveys of private employers indicate a trend to

Figure 6
Percent of Employer Contribution to HMO Premium By Source and Type of Contract, All Plans, 1990



Source: GHAA's Annual HMO Industry Survey

reduce the employer contribution.[33]

For the first time this year's survey asked about the methods used in establishing employer contributions. Employers can use a variety of methods to determine the amount they pay toward the HMO premium. Under an equal dollar approach, the employer pays the same dollar amount regardless of which health plan the individual selects. Under an equal percentage approach, the employer pays the same percentage of the premium regardless of the health plan selected.

Historically, HMOs have tended to prefer equal dollar contribution approaches because an equal percentage approach penalizes more efficient plans. Employers, however, have increasingly desired greater flexibility in structuring contributions, particularly to account explicitly or implicitly for any differences in individuals selecting each option (i.e., selection effects that could influence costs).[34] The 1988 Amendments to the federal HMO Act provide private employers flexibility to address these concerns so long as the methods they use do not financially discriminate against the HMO. (Previously, private employers were required to use an equal dollar contribution approach, with government bodies given greater flexibility.) Considerable uncertainty exists over how to assess financial discrimination, which regulation has not yet defined; litigation is likely.

In 1990, 36.6% of the plans indicated that their single largest account set the premiums using an equal dollar approach, 16.9% using an equal percentage contribution approach, 15.6% a negotiated approach, and 30.8% some other approach. (Figure 7) These other approaches included the methods

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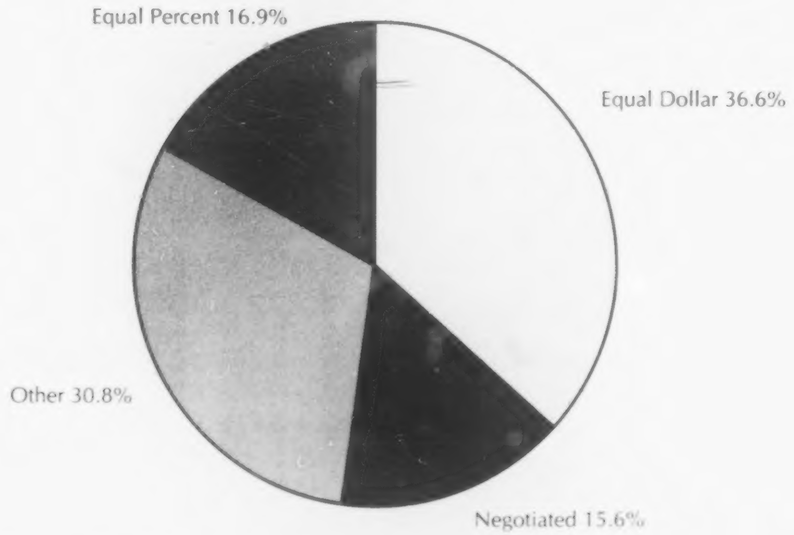
[33] Between 1983 and 1988, the percentage of covered workers in medium- and large-sized firms with health insurance premiums paid entirely by employers declined from 67% to 55% for single coverage, and from 46% to 37% for families (U.S. Bureau of Labor Statistics data as reported by Joseph S. Piacentini and Timothy J. Cerino, *EBRI Databook on Employee Benefits*, Employee Benefits Research Institute, Washington, D.C., 1990).

[34] For a discussion of these issues, see Marsha Gold, "Health Maintenance Organizations: Structure, Performance, and Current Issues for Employee Health Benefits Design," in *Journal of Occupational Medicine*, v. 33:289-296, March 1991. (Special Issue on "Assuring Value in Medical Care for Employees and Dependents, Part II: Key Issues, Current Initiatives, and Future Directions.")

Figure 7

Method Used to Set Employer Contribution in Largest Single Account, Plans Over Three Years Old, 1990



Source: GHAA's Annual HMO Industry Survey

used in the Federal Employees Health Benefits Program (equal dollar subject to a percentage maximum),[35] methods using adjustments for enrollee risk typically through age and sex; amounts set by employers; and others. Because this is the first year in which these questions were asked, it is not possible to assess trends.

As shown in Table 14, employers using an equal percentage contribution tended to pay the lowest amount, on average, for single contracts ($99.30); the percentage contribution to premium also was lowest (83.1%). This occurred in each type of contract (i.e., private employer, federal, and state or local government).[36] It did not occur for family contracts (Table 15). Why differences exist in the pattern for single and family coverage is unclear. The results may be explained by chance or by the many interrelated factors that influence both premium levels and contribution policies (e.g., region, benefits, contract type).

In response to their interest in establishing contributions more reflective of the mix of enrollees choosing to enroll in a plan, some employers are developing methods for adjusting employer contributions based on risk (i.e., enrollee characteristics that influence likely health care use and expenditures). In total, 16.5% of established plans (54 plans) said that at least one employer account had used a risk adjustment in establishing the employer contribution. The use of risk-based approaches could be more extensive because almost half the plans (45.0%) were not aware of whether or not this approach was being used. For those answering only yes or no, 30.0% said risk adjustment had been used.

In 1990, the most common example of risk adjustment was to apply an age or age/sex adjustment in the calculation without any further adjustments; almost half the plans providing examples noted this approach. A few noted what appear to be more involved demographic adjustments, and some plans cited other approaches, most commonly adjustments for benefit differentials. In some cases, the plans indicated that information about the methods used was not made available by the employer or consultant. A few approaches appeared to adjust HMO contributions downward under an apparent assumption of favorable risk. Examples include a surcharge being placed on the HMO premium and retained to offset losses on the self-insured program, a lower percent paid for prospective rates, and reductions for risk (8.5%) and margin (7.0%).

Premium Increases, 1989-1990 and Trends

From January 1989 to January 1990, HMO premium rates in established plans increased 16.9% for single contracts and 18.2% for family contracts; for the small number of new plans, the equivalent increases were 23.1% and 24.8%. Rates of increase were somewhat higher in plans whose largest single account was a federal contract (Figure 8; see also Table 16). This has not been consistently true in other survey years.

Although reported increases are for a plan's largest single account, they generally are typical of average increases within the plans. Most plans (77.8%) indicated premium changes were similar to those in other accounts. Forty-five percent of the remaining plans said the increases were higher in the largest account (13% "considerably" higher); 55% said they were lower (17% "considerably" lower).

Differences in premium increases by type of plan existed, but were not as notable in 1990 as in the recent past when premium increases in the largest plans (100,000 or more enrollees) typically were lower, sometimes considerably so, than other plans (see Table 16). In previous years, this also led to other differences by plan characteristics associated

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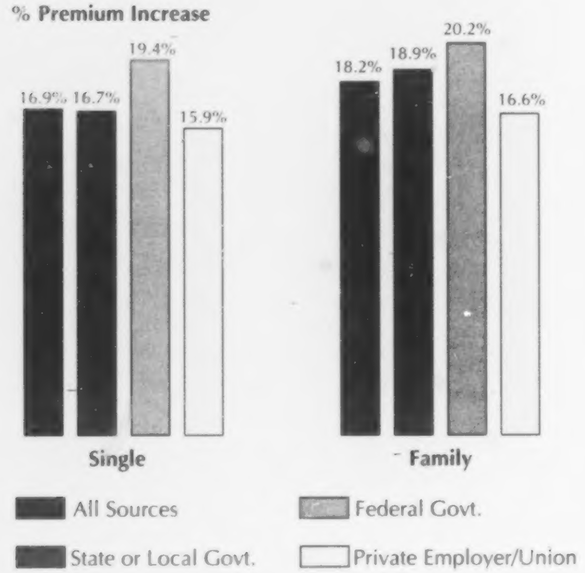
[35] Probably because the FEHBP contribution methodology is complex and includes elements of all three approaches, plans that reported FEHBP as their single largest account characterized it differently. Thirty-two percent noted an equal dollar contribution approach, 15% an equal percentage approach, 9% a negotiated approach, and 44% an "other" approach. Differences may be in part attributable to different features being more salient to particular plans (e.g., whether they are capped by the 75% maximum on contribution). The results also suggest that this item may have some reliability problems, attributable to the complexity of the process used to establish employer contributions.

[36] For federal contracts, those using "other methods" also paid less. Because FEHBP contributions are capped at 75% of premium, this pattern could reflect the influence of the equal percentage approach to setting employer contributions.

Figure 8
Average HMO Premium Increase, 1989-1990, by Contract Type and Source, Plans Over Three Years Old



Source: GHAA's Annual HMO Industry Survey

with size and meant that the average increase experienced by enrollees was lower than reflected in the HMO industry average. In 1990, premium rates increased somewhat more slowly in larger plans for single contracts (15.6% versus 16.9% average); family contract increases in large plans were about on a par with the industry average (18.4% versus 18.2%).

Premium increases in 1990 were similar to those in 1989, with both years showing higher average rates of premium increase than in other recent years (Figure 9).[37] HMO premium increases in 1990 exceeded the rate of inflation in the medical care component of the Consumer Price Index, which averaged 8.5% for the twelve months ending January 1990. However, HMO premium increases probably were still below those of indemnity plans in 1990, as in other recent years.[38]

Medical cost inflation was the main reason cited for the rise in HMO premiums in 1990, as it has been in other years in which the survey asked about factors exerting upward pressure on premiums (Figure 10; for previous years, see 1989 edition of the *Profile*). Hospital prices, hospital utilization, outpatient utilization, physician fees, salaries and other payments, and pharmaceutical costs were most likely

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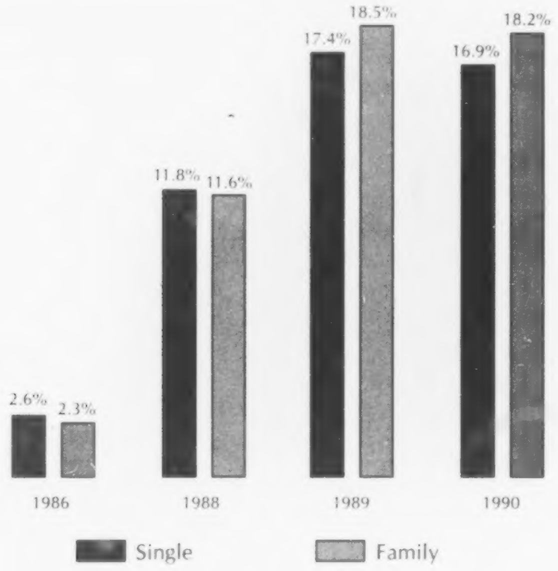
[37] GHAA data do not include 1987. From press reports, it appears that premium increases averaged 7%-8% in that year.

[38] This was true in 1988 and 1989 (Gabel et al. "Employer Sponsored Health Insurance in America" *Health Affairs*, pp. 161-175, Fall 1990). Although 1990 data from most employer-based surveys are not available (these generally provide the only extant data on increases in indemnity rates), information from A. Foster Higgins indicates that 1990 medical indemnity plan costs per employee for employers increased 21.6% in 1990; the average increase including also HMOs, dental, and vision and hearing plans was 17.1% ("Report 1: Indemnity Plans: Cost, Design, and Funding," *Foster Higgins Health Care Benefits Survey*, A. Foster Higgins, 1991). The difference between a 21.6% increase in indemnity plans and a 17.1% increase overall would imply that HMO premium increases in 1990 were, in all likelihood, below those of indemnity plans.

Figure 9
Average HMO Premium Increases, Plans Over Three Years Old, 1986-1990*



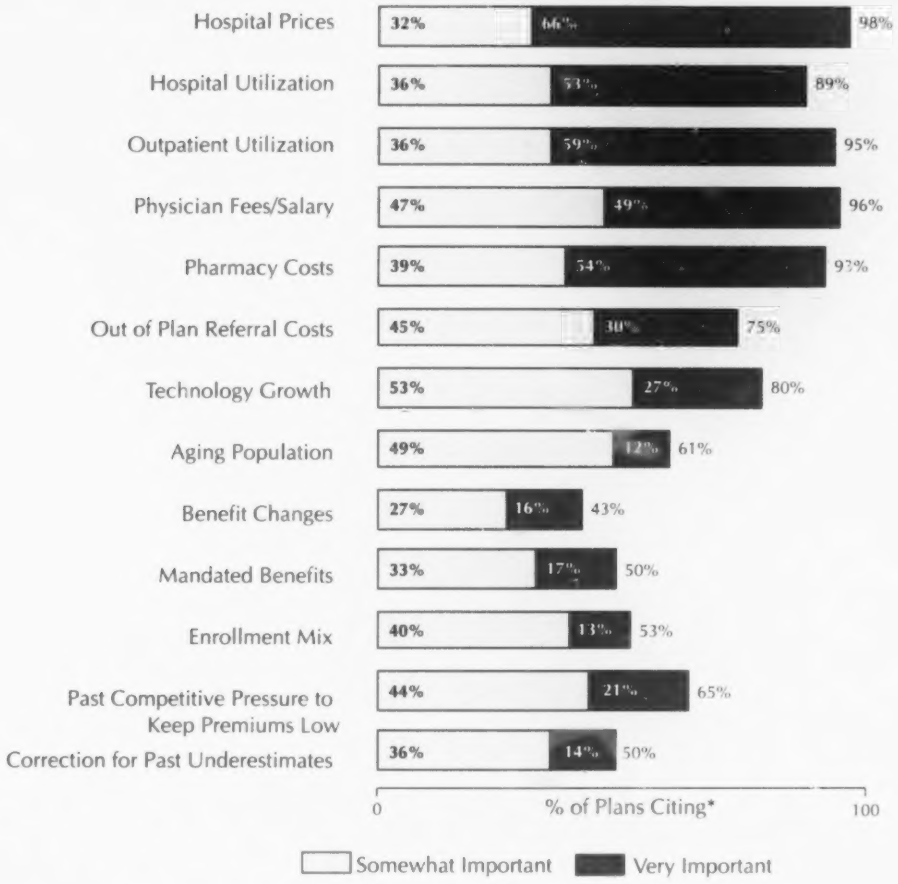
* Based on plan's largest single account; plans indicated these were typical of average increases. GHAA data do not cover 1987.
Source: GHAA's Annual HMO Industry Survey

to be cited by plans as being very important in terms of exerting upward pressure on HMO premiums, as shown in Figure 10. Costs for out-of-plan referral services and technology growth also were viewed as important. These results are not surprising. Although HMO design and incentives encourage efficiencies, HMOs operate within the context of the health care environment, which sets patient and provider expectations as well as the underlying inflation rate for health care services (e.g., labor costs, facilities, equipment, and supplies).

Although perceived as less important than the factors noted above, enrollment mix (in general and because of an aging population) and benefit changes (including mandated benefits) were perceived as somewhat important in contributing to rising premiums. Responses also indicate that 1990 premium increases reflect an effort by HMOs to establish premiums so that expenses are covered and the plan is financially solvent; this probably reflects the maturation of the HMO industry as well as the inevitable lags in identifying cost trends. Two-thirds of the plans indicated that competitive pressure to keep premiums low in past years was somewhat or very important in exerting upward pressure on premiums now. Half indicated that corrections for past underestimates of required premiums contributed to rising premiums in 1990.

Because staff and group model plans organize their delivery systems differently from networks and IPA model plans, inflationary factors may differ between them. As shown in Exhibit 7, all types of

Figure 10
Factors Cited as Important in Exerting Upward Pressure on HMO Premiums, 1990



* The other choice was "not important."
Source: GHAA's Annual HMO Industry Survey

plans perceive the relative ranking in importance of the various inflationary factors similarly. The degree of importance associated with most factors also is similar in many cases. However, there are some differences in emphasis.

The two largest, and not unrelated, differences were that network/IPA model plans were considerably more likely to perceive outpatient use as a very important inflationary factor (65% versus 45%); and a higher percentage of group and staff model plans perceived out-of-plan referral costs as very important (45% versus 24% for network/IPAs). This probably reflects the differences in the structure of the provider networks used in different HMO models. Because network and IPA models use a more dispersed provider base, which draws on physicians

Exhibit 7
Perceived Importance of Various Factors in Exerting Upward Pressure on HMO Premiums, by Model Type, Plans Over Three Years Old, 1990[1]

	Group/Staff Plans			Network/IPA Plans		
Factor	**% Not Important**	**% Somewhat Important**	**% Very Important**	**% Not Important**	**% Somewhat Important**	**% Very Important**
Hospital Prices	3	38	59	2	29	68
Hospital Use	12	43	46	11	34	56
Outpatient Use	12	43	45	3	33	65
Physician Fees/Salary	4	48	47	4	47	49
Pharmacy Costs	13	43	44	6	37	57
Out-of-Plan Referral Costs	16	39	45	29	48	24
Technology Growth	20	57	22	20	51	29
Aging Population	39	51	11	39	48	13
Benefit Changes	65	21	14	53	30	17
Mandated Benefits	54	29	17	48	35	18
Enrollment Mix	55	36	9	43	42	15
Past Competitive Pressure	33	47	19	36	42	22
Correction for Underestimates	60	34	5	46	37	17

Notes:

1. Percentages refer to the percent of plans specifying if each of the factors were not important, somewhat important or very important. Percentages may not add to 100 because of rounding
2. Refers to out of plan referral costs.

Source: GHAA's Annual HMO Industry Survey

practicing in the fee-for-service sector, utilization management is a greater challenge. In contrast, group and staff model plans tend to rely on a multispecialty group practice affiliated full time for the plan. This enhances the ability to influence utilization but may increase the need for out-of-plan referrals for services that cannot be provided within the group, making cost control more difficult in this circumstance. The fact that staff and group model plans make more extensive use of in-house pharmacies and formularies (see 1990 edition of the *Profile*) and sometimes own their own hospitals also appears to be reflected in the data. Group and staff model plans attach somewhat less (though still extensive) importance to pharmaceutical costs and to hospital prices and use than do network and IPA models.

Even though HMO premium increases may have been below those of indemnity plans, they have been a cause for employer concern. Preliminary data suggest that premium increases are moderating in 1991. January 1991 increases averaged 12.9% among those plans sampled for GHAA's *HMO Market Position Report*.[39] Moderation probably reflects the maturation of the HMO industry, specific initiatives taken by plans to control costs and limit necessary premium increases, and cyclical trends associated with the time lag experienced by plans in responding to cost trends.

Methods Used to Set HMO Premiums and Trends

HMOs have modified the rating methods used over the past several years. Although community rating continues to be a characteristic of HMOs, the methods used have been modified in some plans in response to purchaser and marketplace pressure for group-specific rating methods.

Plans have started to use the authority given by the 1988 Amendments to the federal HMO Act, which allows them to set rates prospectively based on group experience. This follows a shift from 1986 to 1988 toward greater use of community rating by class (as contrasted with standard community rating). The percentage of plans using experience rating also has grown, although its use remains fairly limited and the applications differ from those common in indemnity insurance (e.g., retrospective adjustments are far less common in HMOs).[40]

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[39] Marsha Gold and Kevin Camerlo *HMO Market Position Report: Results from an October 1 '90 Member Plan Survey* (Group Health Association of America, Washington, D.C., November 1990).

Background on Types of Rating Methods Available

Historically, standard community rating was the rating method used by HMOs. Under this form of rating, one plan-wide rate is set for all enrollees of the same contract type (e.g., single, family), adjusted for any differences in benefits covered. This rate is fixed in advance, providing the HMO with strong incentives to manage care effectively within the budgeted revenues underlying the premium rate. Under community rating by class, multiple plan-wide rates are established based on the demographic class of enrollees (e.g., by age and sex categories). Both standard and community rating by class are plan-wide rate-setting methods; there is no explicit adjustment for the expected experience of any particular employer group, even though community rating by class could result in different rates for employers based on their demographic profiles. For example, an employer with a higher percentage of enrollees age 45 or older than the plan average might pay a higher rate because, on a plan-wide basis, those age 45 and older tend to use more health care services.

The 1988 Amendments to the HMO Act provided federally qualified plans with an additional option to use adjusted community rating. Under adjusted community rating, rates can be set to reflect the anticipated group experience, but on a prospective basis—no retrospective adjustment is allowed if costs exceed estimates used to develop premiums. Certain restrictions also apply to encourage affordable rates for small employers.[41] The Health Care Financing Administration has not yet issued regulations defining adjusted community rating, resulting in some uncertainty, which may be influencing the form of rating plans select.

Although standard community rating, community rating by class, and adjusted community rating are the only methods permissible under the federal HMO Act,[42] some HMOs are not federally qualified, not qualified in some service areas, or have non-federally qualified subsidiaries. If state law permits, these plans may use experience rating, which bases rates on the expected experience of a group. Actuarial techniques are used to trend forward historical group experience to establish rates based on expected utilization and costs. In using these methods, some plans also may apply a retrospective adjustment.[43]

Retrospective adjustments remove some risk of prepayment from plans, because future years' rates are adjusted if it is determined that historical expenses exceeded the estimated costs used to establish premiums; this is the approach used in the commercial insurance industry. Although Blue Cross and Blue Shield organizations originally based rates on community rating principles, most now also use experience rates in response to competitive pressures generated by commercial insurers offering group-specific rates and by employers' option to self-insure.[44]

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[40] Readers should note that rating questions were altered in 1989 to reflect the 1988 Amendments to the HMO Act by adding a new category, "adjusted community rating," to the existing three categories of standard community rating, community rating by class, and experience rating.

[41] See Public Law 100-5127, "Health Maintenance Organization Amendments of 1988," October 24, 1988. The amendments require, for example, that the maximum rate differential for small employer groups (defined as 100 employees or less) be no more than 110% of the community rate.

[42] The federal Act provides plans with greater flexibility in the rating methods used for government contracts (e.g., state employees' plans).

[43] HMOs using experience rating but making no retrospective adjustment would not be subject to restrictions of the federal Act, which apply under adjusted community rating (such as the limit on rates for small employer groups). Conceptually, adjusted community rating differs from prospective experience rating in that the former involves the additional need to evaluate all rates relative to one another in terms of their combined ability to address plan-wide revenue needs while addressing issues of relative rate affordability to purchasers. Depending upon how prospective experience rating is applied, however, it may otherwise be fairly similar to adjusted community rating as a technique for reflecting group experience.

[44] Susan Feigenbaum, "Risk Bearing in Health Care Finance" *Health Care and its Costs: Can the U.S. Afford Adequate Health Care*, C. Schramm, ed. (American Assembly, W.W. Norton, New York, 1987, pp. 105-144).

Any insurance rating approach involves the pooling of risk among individuals. Standard community rating assumes that this risk is best pooled across the *entire* community (e.g., all enrollees) to encourage affordable rates regardless of the health status of any subpopulation or particular employer account and to conserve the administrative costs otherwise needed to assess prior expense experience or health status. This contrasts with other insurance rating approaches, in which risk-sharing pools are defined for a specific employer group or are based on individuals or groups of firms with similar expected costs. From an actuarial perspective, group-based rating approaches are not soundly applied unless the group as defined is sufficiently large to be "credible," meaning that the number of individuals involved is sufficiently large that experience is likely to vary by chance only within a limited range, and year-to-year rate stability is encouraged.

Community rating approaches are favored by some as the most appropriate and equitable approach to encouraging coverage for expenses that vary widely across a population. Others disagree with the assumptions behind the community rating approach, believing that it results in inappropriate cross-subsidies inconsistent with insurance principles. Many purchasers believe, for example, that their obligation is to pay only the costs of their employees and dependents, and they are particularly concerned that premiums not be increased because of pooling across all employer groups and enrollees.

Because probable health care costs tend to vary among individuals and across employer groups, it is difficult to maintain a community rating approach if diverse rating methods are used in the marketplace at large and costs are a concern to purchasers. Those offering group-specific rating can market to the lower priced groups, resulting in a more expensive population remaining within the community-rated plan. This can create a spiral, as additional groups leave the plan as rates increase. The ability of employers to self-insure produces similar effects.

On the other hand, a shift away from community rating also could be destabilizing to an HMO or the insurance market, because employers for whom rates are now higher may seek alternative coverage or drop coverage entirely; some plans phase in or limit the scope of adjusted community rating for this reason. Problems also arise if an insurer offers a low initial rate to attract a group, dropping coverage later when experience indicates the group is more expensive. There is some evidence that this has occurred for small employers seeking traditional indemnity insurance.[45]

Only recently have HMOs faced these kinds of concerns over rating. Because of the uniqueness of the HMO product and the limited HMO penetration, HMOs tended not to be as great a focus of purchaser concern as they are today, nor were health benefits in general. Most employers, particularly medium and large ones, made available to employees one or more HMO options (in more recent years, typically, at least both a prepaid group practice and an IPA) and an indemnity plan, the former all subject to community rating and the latter to experience rating. With the recent steep increases in health benefit expenses, employers have focused more attention on issues of health benefits design. As discussed in Section VII, this has resulted in increased pressure on HMOs to use rating methods that adjust for group experience.

Rating Patterns in 1990

This section examines HMO rating practices in 1990 from three perspectives: the extent to which a particular rating method is used at all by plans, the mix of methods used, and the proportion of enrollment rated under each particular approach. Information on the first two types is based on private employer contracts, as these are subject to restrictions in the federal HMO Act. Information on enrollee distribution by rating method used is based on the total plan enrollment.

As shown in Figure 11, 55.3% of plans made some use of standard community rating for private employer accounts, 50.5% used community rating by class, 31.8% used adjusted community rating, and 30.6% used experience rating with adjustments for group experience using other than the adjusted community rating approach (see also Table 18). Of these later plans, 26.6%—about a quarter—used a method that involved a retrospective adjustment to the rates based on group experience; the rest did not. Rating therefore was basically *prospective* in 1990; less than 10% of all plans used retrospective adjustments.

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[45] U.S. Bipartisan Commission on Comprehensive Health Care *The Pepper Commission: A Call to Action* (U.S. Government Printing Office, Executive Summary, September 1990).

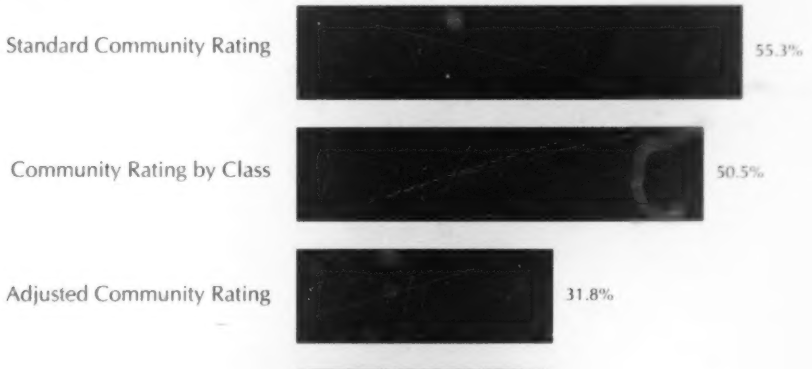
Figure 12 profiles the rating practices used by plans for private employer groups, taking into account the fact that most plans used a combination of methods (see also Table 19). Most plans (69.4%) in 1990 used only the various forms of community rating methods permissible under the federal HMO Act. Forty-four percent used only plan-wide methods: 22.5% used standard community rating exclusively, and 21.9%, community rating by class (13.2% exclusively and 8.7% in conjunction with standard community rating).

Some explicit adjustment for group experience was used by over half the plans. Twenty-five percent of plans used only adjusted community rating to accomplish this (7.2% used only this method).[46] Another 30.6% made use of experience rating; only 7.5% used this exclusively, with the remainder using a mix of methods.

The profile of rating methods used within a plan varied by plan type, but patterns were not dramatically different in most cases. Plans in New England and the Mid-Atlantic were considerably more likely

Figure 11

Percent of HMOs Making Any Use of Various Rating Methods, in Private Employer Contracts, Plans Over Three Years Old, 1990[1]



1. Plans may use more than one method.
2. A quarter of these plans used a method involving a retrospective adjustment to rates.
Source: GHAA's Annual HMO Industry Survey

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[46] Within the 24.9% of plans using adjusted community rating (ACR) but not other experience-based methods, 7.2% used ACR exclusively, 3.6% used ACR and community rating by class, 7.5% used ACR and standard community rating, and 6.6% used all three methods allowed for federally qualified plans.

to rely only on methods allowed under the federal HMO Act than were other plans; Mid-Atlantic plans, in particular, tended to rely exclusively on standard community rating, which probably reflects New York State's statutory requirements for HMOs.[47] Standard community rating also was more likely to be used exclusively in group model plans (40.7%), nonprofit plans (30.5%), and independent HMOs (31.8%).

IPAs were most likely to make some use of experience rating (38.3%) and group model plans least likely to (9.3%, with 40.7% using only standard community rating). Non-federally qualified plans were more than twice as likely (49.5% versus 21.2%) to use experience rating as federally qualified plans.[48] Although insurer-owned plans were among the ownership types more likely to make some use of experience rating (42.0% for Blue Cross-Blue Shield plans and 33.3% for commercial insurer-owned plans), the differences were not as striking in relation to other types of plans as might be anticipated, given the fact that insurer-owned plans are part of companies using experience rating in their traditional insurance business.

Compared to established plans, new plans were less likely to use standard community rating exclusively (6.7% versus 22.5%), with greater reliance on

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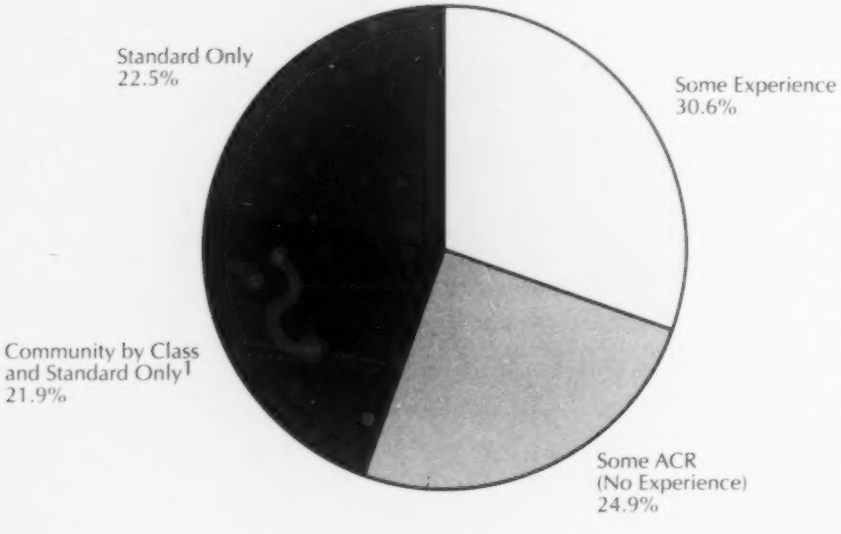
[47] Article 44 of the Insurance Statute of the State of New York requires plans to use standard community rating only.

[48] These statistics do not account for the fact that federally qualified plans also may have nonqualified subsidiaries or be qualified only in certain service areas.

Figure 12

Profile of Rating Methods Used for Private Employer Accounts, Plans Over Three Years Old, 1990



Percentage Distribution of Plans

1. CRC with or without standard rating.
Source: GHAA's Annual HMO Industry Survey

Exhibit 8

Mean Percent of Plan Enrollees Rated Using Each Rating Method, by Type of Methods Used in Plans Over Three Years Old, 1990

	Type of Method(s) Used by Plan[1]				
Rating Method	**All Plans[2]**	**Standard Only**	**Standard/ CRC only[3]**	**Some ACR/ No Experience**	**Some Experience**
Standard Community	34.4%	98.8%	14.6%	19.7%	13.4%
Community by Class (CRC)	30.9	0.0	85.0	18.8	25.5
Adjusted Community (ACR)	17.6	0.1	0.0	61.6	6.8
Experience (Other)	17.1	1.1	0.4	0.0	54.3
(Number of Plans)	(332)	(75)	(72)	(58)	(124)

Notes:

1. Refers to profile of methods used for private employer groups only Distribution of enrollment refers to all plan enrollees, regardless of source.
2. Includes 4 plans with missing information on their rating profile.
3. Includes plans using community rating by class, with or without some use of standard community rating.

Source: GHAA's Annual HMO Industry Survey

adjusted community rating and other experience-based approaches (73.3% used one or both of these).

A final perspective on 1990 rating methods is shown in Exhibit 8, which presents information on the mean percentage of a plan's *total* enrollment rated using each approach in 1990; statistics are presented both in aggregate and for plans with different rating profiles (i.e., mix of methods used). On average, 34.4% of a plan's enrollees were rated using standard community rating, 30.9% using community rating by class, 17.6% by adjusted community rating, and 17.1% by other experience-based methods (see also Table 20).

As might be expected, the distributions vary dramatically according to the profile of rating methods used. Virtually all of a plan's enrollment was rated using standard community rating if this method was used exclusively for private employer groups. When plans used community rating by class alone or in combination with standard community rating, 85.0% of their enrollment was rated, on average, using the former. Plans using adjusted community rating alone or in conjunction with other federally approved methods rated 61.6% of their enrollment through adjusted community rating in 1990. Those making some use of experience rating had 54.3% of their enrollees, on average, rated using this method. Since the rating methods used are changing, it is possible that some of these patterns may reflect transitional stages.

The rating methods used by plans are determined by a variety of factors. From a data capability perspective, it appears that most plans have the data to allow employer group-specific rating, although some may face difficulties in generating reports needed for this process. Seventy-one percent of plans said that their management information systems were capable of developing reports of total cost by employer group easily; 20.3% said they could do this with difficulty. Group-specific rating also may be accomplished by drawing on utilization-based data. Seventy-nine percent of groups said they could develop reports of inpatient utilization by employer group easily, 17.6% with difficulty. Comparable statistics for outpatient utilization reports by employer group were 72.5% and 21.3%.

For community rating by class, plans must be able to analyze cost or utilization by class (e.g., age and sex). Compared to adjusted community rating, the data constraints of plans seeking to use community rating by class appear somewhat larger but may not be. Forty-one percent of plans said they could develop reports of total cost by age and sex easily and 43.0% with difficulty. For inpatient utilization, the comparable figures were 61.3% and 32.7%. For outpatient utilization, they were 47.9% and 41.9%. On the other hand, 82.6% of plans responding to last year's survey said their information systems were capable of providing the data needed for community rating by class or would be within 12 months. The percentage whose systems were capable of supporting this form of rating was similar to that of adjusted community rating (80.4%) and above that of other forms of experience rating (69.7%).[49]

Rating Trends, 1986-1990

The methods HMOs use to set rates continue to change. Between 1989 and 1990, the percentage of plans using some form of employer group-specific rating increased from 47% to 56% (Exhibit 9). Among those plans restricting their rating methods to those permissible under the federal HMO Act, a higher percentage of plans used adjusted community rating in 1990 than 1989; this appears to have occurred largely as a result of a shift among plans using community rating by class in 1989.[50] The percentage of plans using experience rating also increased in 1990. Similar trends are observed among only those established plans responding to the survey in both years; hence, changes cannot be explained merely by differences in the plans responding in each year.

Exhibit 10 summarizes the rating changes between 1986 and 1990 from the perspective of the average percentage of enrollment rated using each method. This analysis provides a better sense of the magnitude of potential changes, as viewed from the perspective of the number of affected enrollees. Most notably, the trends suggest that the shift to adjusted community rating may be more substantial than reflected solely by statistics on the percentage of plans using it; there were—on average—about two-thirds more of a plan's enrollees rated under this approach in 1990 than in 1989. This contrasts with a smaller increase in the percentage of enrollees rated using experience rating approaches. Exhibit 10 also shows that, despite the rating changes, almost two-thirds of enrollees in each plan, on average, continued to be rated using standard community rating or community rating by class in 1990.

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[49] These statistics include those plans whose systems were not capable of doing these forms of rating but would be within 12 months. The overwhelming majority of plans indicated that systems could accomplish this at the time of the survey; the percentage indicating refinements were underway to allow this form of rating within 12 months was highest for adjusted community rating.

[50] This analysis uses the bottom half of Exhibit 9, showing the profile of methods used by plans. The reader might note that the top half of Exhibit 9 showing the percentage of plans making any use of a particular method shows no change in the percentage of all established plans making any use of adjusted community rating between 1989 and 1990. The discrepancy between these statistics and the conclusions based on the mix of methods used is probably explained by a greater overlap in 1989 than 1990 in the plans using both adjusted community rating and other experience-based approaches.

Exhibit 9
Changes in Mix of Rating Methods Used for Private Employer Accounts, Plans Over Three Years Old, 1989–1990

			Plans Reporting Both	
Measure Used	**1989**	**1990**	**1989**	**1990**
Any Use of:				
Standard Community	57.6%	55.3%	61.6%	53.7%
Community by Class	55.3%	50.5%	55.6%	49.5%
Adjusted Community	31.1%	31.8%	28.7%	29.6%
Experience (Other)	26.1%	30.6%	22.7%	29.2%
(Number of Plans)	(257)	(333)	(216)	
Profile of Methods Used:				
Standard Community Only	24.5%	22.5%	25.9%	23.1%
Community by Class & SRC Only	30.0%	21.9%	32.4%	24.1%
Some ACR (No Experience)	19.5%	24.9%	19.0%	24.1%
Some Experience (Other)	26.1%	30.6%	22.7%	29.2%
(Number of Plans)	(257)	(333)	(216)	

Source: GHAA's Annual HMO Industry Surveys

Exhibit 10
Mean Percentage of Enrollees Rated Using Different Methods, Plans Over Three Years Old, 1986–1990

					Plans Reporting Both	
	1986	**1988**	**1989**	**1990**	**1989**	**1990**
Standard Community	65.8%	46.6%	39.4%	34.4%	41.6%	35.2%
Community by Class	23.6	38.4	34.6	30.9	35.5	31.3
Adjusted Community*	–	–	10.6	17.6	9.8	16.7
Experience (Other)	10.6	15.0	15.4	17.1	13.1	16.9
(Number of Plans)	(117)	(199)	(280)	(332)	(238)	

* Defined specifically in the 1988 Amendments to the federal HMO Act.
Source: GHAA's Annual HMO Industry Surveys

VI. MEMBERSHIP COMPOSITION

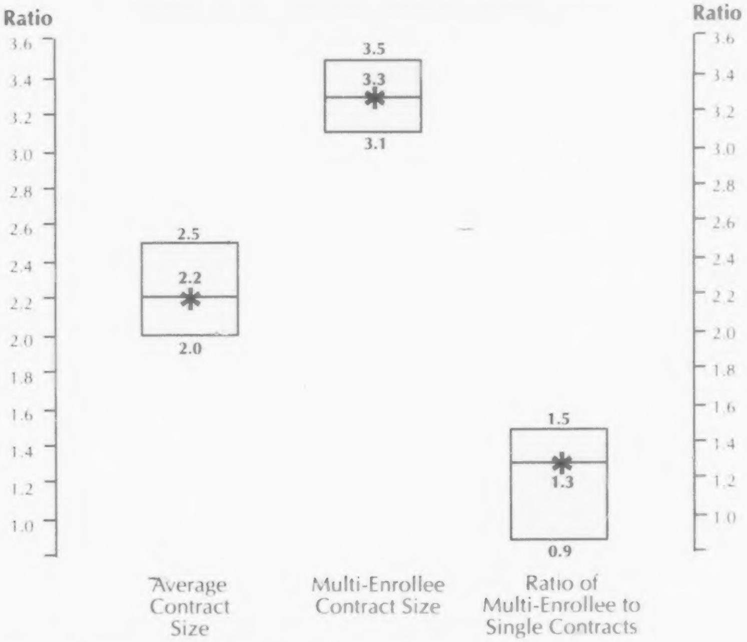
This section provides information on the membership composition of HMOs. It includes information on average contract size and distribution of enrollment between single and multienrollee contracts. The section also addresses the sources of HMO membership, including the composition of enrollment by payment source, the characteristics of the largest contracts, the inclusion of enrollees from small employers, and the extent to which HMOs offer membership to individuals not enrolled on a group basis. Some of this information was included in our survey for the first time in 1990.

Average Contract Size and Structure

In an effort to enhance the availability of useful data on HMOs, the Annual HMO Industry Survey was expanded this year to include several aspects of enrollment information previously available only to HMOs participating in GHAA's Comparative Data-

Figure 13

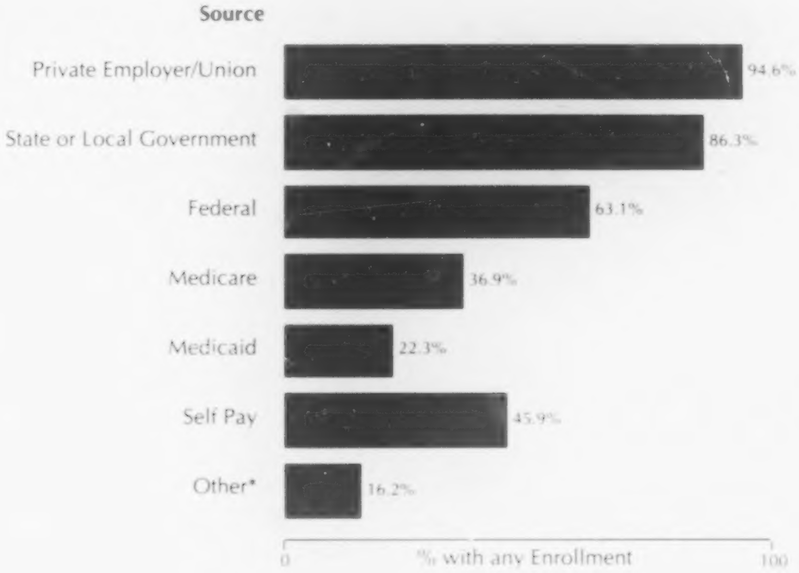
Distribution of HMOs by Average Contract Size and Structure, Plans Over Three Years Old, 1990*



*Top and bottom of box shows the 25% and 75% of the distribution (interquartile range). Middle line shows the median. Asterisk shows the mean which in all three cases was equal to the median.
Source: GHAA's Annual HMO Industry Survey

Figure 14

Percentage of Plans Drawing Enrollment from Various Payor Sources, Plans Over Three Years Old, 1990



* Includes CHAMPUS, school districts, universities, etc.
Source: GHAA's Annual HMO Industry Survey

base for Managed Care Systems.[51] The major addition was information on average HMO contract size and related statistics (Figure 13; see also Table 21).

On average, established plans had an average contract size of 2.2 individuals in 1990. Although plan averages varied from 1.0 to 4.6, half the plans were in the range of 2.0 through 2.5; the median was 2.2 This half represents the interquartile range, defining the 25th to 75th percentile of the distribution.

Contracts can be single or multiperson. The median HMO had approximately 20% more multiperson than single-person contracts, i.e., the median ratio of multiperson to single-person contracts was 1.2. This ratio ranged from 0.1 to 8.2, with the interquartile range being 0.9 through 1.5. For multiperson contracts, the average contract size was 3.3 individuals. The average multiperson contract size ranged from 1.0 to 6.4, with the interquartile range being 3.1 to 3.5.

These data imply that for the median plan there are 4 individuals enrolled under a multiperson contract for every individual enrolled under a single contract. Similarly, they imply that 80% of the median plan's enrollment is based on multiperson contracts.[52]

Enrollment by Payment Source

Distribution by Payor Type

HMOs draw their enrollment from a variety of sources, but group contracts with employers are the major source of HMO enrollment (Figure 14; see also Table 22). All but 5.4% of HMOs enrolled from private employer or union groups; 86.3% had enrollment under state or local government contracts; and 63.1% had enrollment under federal contracts. In terms of public program involvement, 36.9% had enrollees whose primary payor source was Medicare, and 22.3% had Medicaid enrollees. Just under half of HMOs (45.9%) had nongroup enrollees (i.e., self-pay), which includes conversions from group contracts as well as other individual enrollments. Sixteen percent draw enrollment from additional sources such as CHAMPUS, school districts, universities, and others. Compared to established plans, new plans were much less likely to draw enrollment from sources other than private employers.

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[51] Marsha Gold, Anthony Tucker, and Susan Palsbo, "The Comparative Database for Managed Care Systems: An Initiative to Develop Uniformity and Consensus on Data for a Maturing Industry in an Uncertain Environment" *Journal of Ambulatory Care Management* 12: 38-47, 1989. (A Utilization Data Supplement also was added to the Annual HMO Industry Survey to provide more detailed information on utilization than is collected in the main body of the Survey. Data from the Supplement will be provided in a new report, GHAA's *Sourcebook on HMO Utilization Data*.)

[52] This estimate uses the 3.3 average family size statistic and inflates it by a factor of 1.2 to account for the median ratio of multiple to single-person contracts. The result—3.96—is then contrasted against a figure of 1.0 for single-person contracts. Percentages of a plan's enrollment compare 3.96 to 4.96 (3.96 plus 1.0).

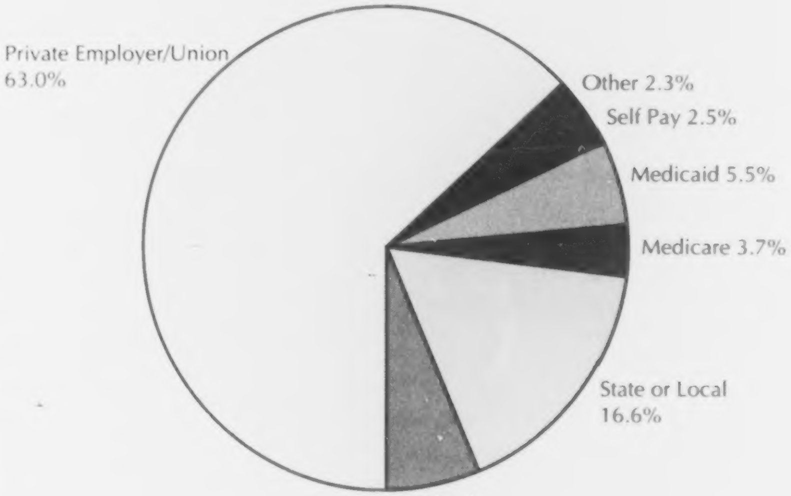
In the average established HMO, almost two-thirds of the enrollment (63.0%) was from private employers, 16.6% from state and local government, and 6.4% from federal contracts (Figure 15; see also Table 23). Together, Medicare, Medicaid, self-pay, and other contracts contributed 14% of total enrollment. The average Medicaid percentage (5.5%) probably overstates the experience in most plans because it is influenced by a few plans with a large proportion of Medicaid enrollment (see Table 22).

The survey also included a few items designed to respond to frequent inquiries concerning the nature of some types of HMO enrollments. In sum, for established plans these results indicate that:

- 80% of HMOs enrolling Medicaid populations said these individuals could best be described as AFDC or similar populations (i.e., children, and women of child-bearing age); 6% as others (e.g., those with Supplemental Security Income), and 14% as both.
- Of plans with Medicare enrollment, 40% of plans enrolled at least some Medicare beneficiaries through employer groups. Of these plans, 44% enrolled less than a quarter of their Medicare enrollment from employer groups, 18% had between 25% and 49% of their enrollment from groups, 12% had between 50% and 74% from

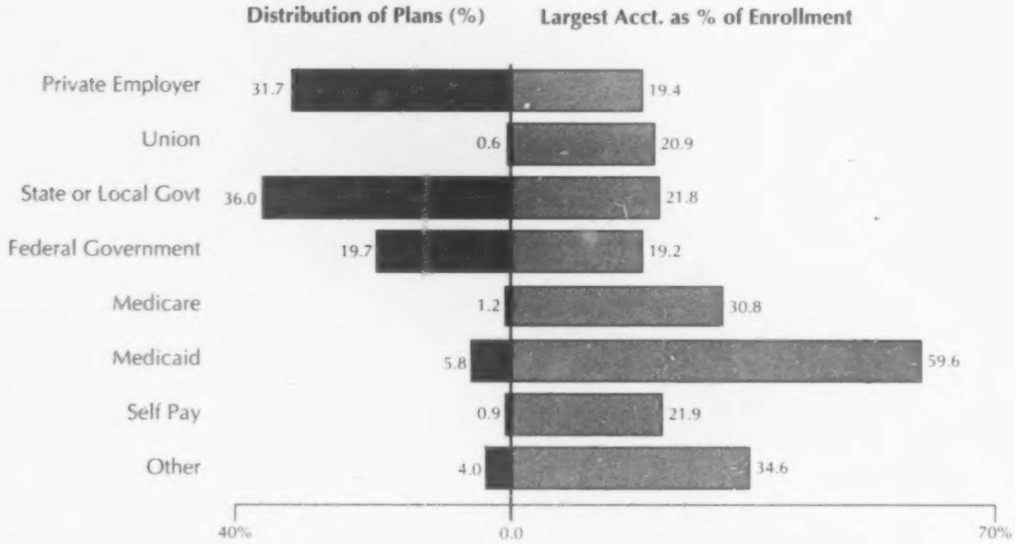
Figure 15

Distribution of HMO Membership by Source, Plans Over Three Years Old, 1990



Source: GHAA's Annual HMO Industry Survey

Figure 16
Selected Characteristics of Largest Single Account, Plans Over Three Years Old, 1990



Source: GHAA's Annual HMO Industry Survey

groups, and 26% had three-quarters or more of their enrollment from groups (21% had Medicare enrollments exclusively from groups). In sum, across all established plans with Medicare enrollment, the mean Medicare enrollment from employer groups was 16.9%.

- Twenty-nine percent of plans offered a self-pay individual enrollment option on *other* than a conversion or Medicare wrap basis. Forty-two percent offered a prepaid Medicare supplement or Medigap plan (e.g., wraparound plan).[53]

Information on plans offering self-pay and Medicare supplemental products is presented at the end of this section.

Characteristics of Single Largest Account

Although almost all HMOs have numerous accounts with employers and others, the largest single account contributes a considerable share to the membership of an individual plan. On average, the largest single account contributed 23.3% of the total enrollment in an established plan. It reflected 10% or less of enrollment in 32% of plans, but more than 60% of enrollment in 8% of plans (see Table 24).

As might be expected by virtue of their size as well as their importance in contributing to total HMO membership, state and local government, private employers, and, to a somewhat lesser extent, the federal government (i.e. the Federal Employees Health Benefits Program) were most likely to be the largest single accounts in HMOs (Figure 16). Although a small percentage of plans had Medicare, Medicaid, or other sources as their largest single account, those that did obtained a large share of their enrollment from the account; this was particularly true with Medicaid.

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[53] The survey question asked was, "Does your plan offer a prepaid Medicare supplement or Medigap plan (e.g., "wrap" plan)?" Although the item was designed to identify products offered to individuals not enrolled under a federal Medicare risk or cost-based contrast, the wording did not specifically address this issue. As a result, some plans responding affirmatively may be including Medicare risk or cost-based contracts, which offer supplemental benefits beyond Medicare's basic benefits.

Enrollment of Small Employer Groups

Increased attention is directed to insurance market reform designed to broaden coverage among small employers. Because of the interest in this topic, GHAA's Annual HMO Industry Survey asked plans about the percentage of the total HMO enrollment represented by employees of organizations with fewer than 25 employees. (Additional information on HMO practices and perspectives with respect to the small employer market is included in GHAA's *HMO Market Position Report,* based on a random sample of GHAA member plans).[54]

Eighty-two percent of established HMOs (57.1% of new plans) enrolled small employer groups (see Table 25). Although involvement in the small group market was common for plans of all characteristics, the likelihood of involvement varied somewhat by type of plan. The percentage of plans enrolling from the small group market increased with plan size; 96% of plans with 100,000 enrollees or more had enrollment from small employer accounts. The youngest established plans were less likely than others to be involved in the market (75% among plans 4-7 years of age). Plans owned by commercial insurers also were less likely to be involved in this market (66%); provider-sponsored plans were most likely to be involved (90%).

Across all established plans, small employers accounted for an average of 10.1% of a plan's total enrollment; they accounted for 11.6% of a plan's commercial group enrollment, defined as all enrollees with the exception of Medicare, Medicaid, and self-pay. These figures are about two percentage points lower than estimates for 1988, a fact probably explained by the more representative response for the 1990 survey rather than by any change in the HMO industry.

Enrollment of Individuals on a Non-Conversion Basis

In 1990, 28.9% of established plans offered a self-pay individual enrollment option other than conversion or Medicare wrap. Among plans offering them, these contracts accounted for 2.4% of the median plan's membership; the mean was 3.8% (see Table 26).

The involvement of plans in the individual market varied by plan characteristic (Figure 17). Group and staff model plans were more likely to offer these options than network and, particularly, IPA models; so were nonprofit plans. Plans with 50,000 or more members or with 8 or more years of operational experience were more likely to offer them than younger or smaller plans. Among ownership categories, plans owned by commercial insurers were least likely to offer this option.

Availability of Medicare Supplemental Enrollment

Forty-two percent of plans offered a prepaid Medicare supplement or Medigap plan (e.g., Medicare wrap) in 1990 (see Table 26). These products involve prepaid HMO coverage for Medicare deductibles, coinsurance, and noncovered benefits through the HMO provider network. The products allow HMOs to serve Medicare beneficiaries even if the HMO does not have a Medicare risk or cost-based contract or if the beneficiary chooses not to enroll; in these circumstances, the HMO bills Medicare on a fee-for-service basis. Medicare supplemental plans have been useful to HMOs in integrating with employer group retiree plans, as well as in continuing service to beneficiaries who were enrolled in the plan while working.

The types of plans likely to offer these products varied in a generally similar fashion to individual enrollment options. The products were most common in larger and older plans; 69.3% of plans with 100,000 or more members and 55.6% of plans 16 years or older offered them. They were least common in IPA model plans (32.2%), plans 4-7 years old (29.9%), for-profit plans (31.9%), and commercial insurer-owned plans (22.2%). For plans offering these products, the median percentage of the plan's enrollment in the product was 2.1%; the mean was 5.5%.

In considering these statistics, readers should note that the survey question did *not* specifically ask plans to exclude products offered in conjunction with the Medicare risk or cost contract. Hence, some plans responding affirmatively may have based their response on a Medicare risk or cost control offering supplemental benefits. If so, this could result in an overestimate of the percent of plans offering Medicare supplemental products independent of any federal Medicare contract.

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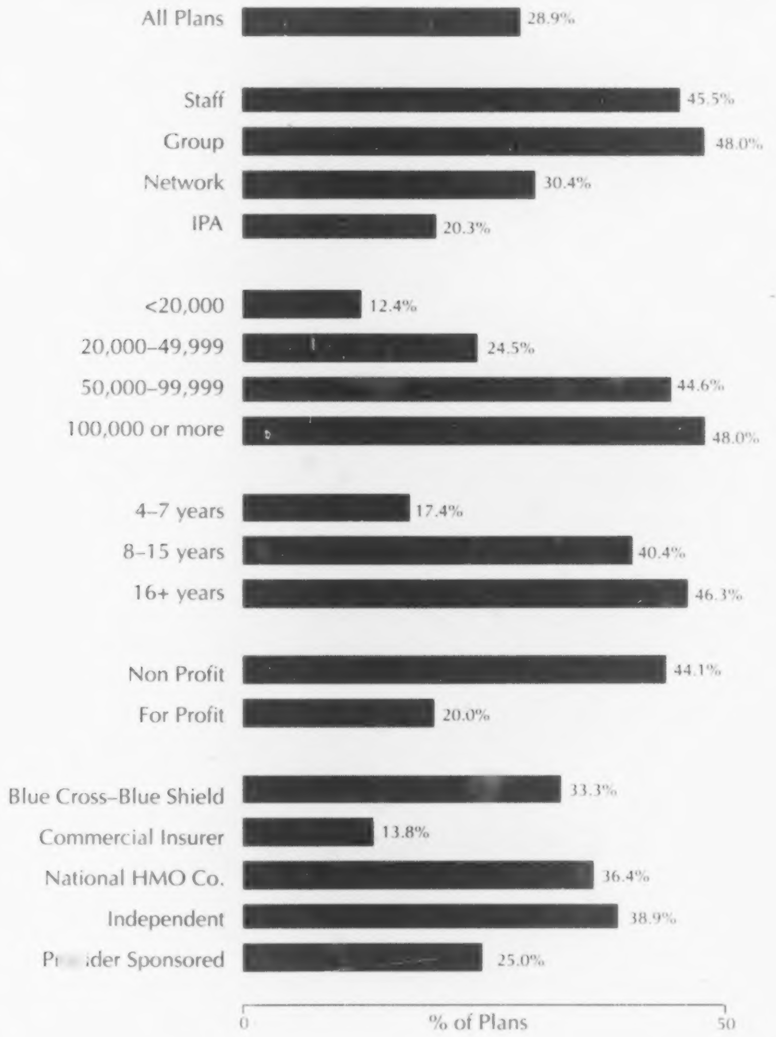
[54] This report, dated November 1990, is available from GHAA's Research and Analysis Department.

Figure 17
Percentage of Plans Offering Individual Enrollment Options, by Plan Type, Plans Over Three Years Old, 1990



Source: GHAA's Annual HMO Industry Survey

VII. HMO DIVERSIFICATION AND MARKET PRESSURES

This section provides information on the development of agreements with other HMOs to address the needs of national employer accounts, the extent and kinds of efforts HMOs have undertaken to diversify their product or enter new lines of business, and the kinds of pressures that HMOs perceive from employers to make various changes in their plans. Basic information on employer data requests is also included; this issue will be further addressed as part of a separate GHAA publication on HMO data capabilities and employer data requests.

Unless otherwise indicated, statistics are for plans over 3 years old ("established plans").

Development of Agreements with Other HMOs

Employers, particularly large employers, are becoming increasingly active in managing their health benefits programs. Among their concerns is the administrative burden of managing numerous health benefit options, a burden felt most acutely when a workforce is dispersed across a wide number of geographical areas. Some employers have sought to streamline their programs to deal only with a single umbrella entity or a limited number of organizations.

Forty-two percent of established plans either had or were in the process of implementing agreements with other HMOs to address the needs of national accounts or employers who wish to offer HMO options under a single umbrella entity (Figure 18; see also Table 27). The likelihood of having such agreements increased with plan size; almost two-thirds of all HMOs with 100,000 members or more (64.9%) indicated they had such agreements. Agreements were most likely in plans owned by Blue Cross and Blue Shield organizations (which sponsor HMO USA) and national HMO companies. Thirty-eight percent of independently owned plans indicated they had or were developing these types of agreements. Although only 24.4% of plans owned by commercial insurance companies indicated they had such agreements, possibly some of these plans assumed the question referred only to plans owned by a company other than their own. Agreements were common in all model categories, although network model plans were most likely to engage in them.

Diversification into Other Lines of Business

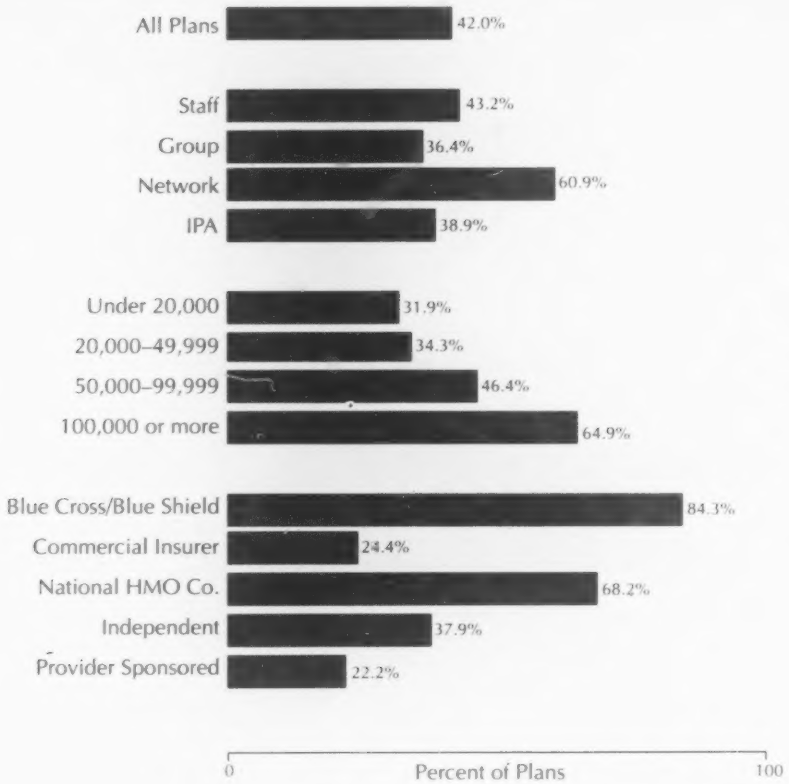
In 1990, 46.3% of established plans (50.0% of new plans) indicated they offered additional benefit options or "lines of business" other than the traditional HMO comprehensive health benefit coverage. Because plans may interpret this question differently, it is more illuminating to examine specific activities in which plans may be involved (see Tables 28 and 29). Conceptually, types of diversification can be divided into those relating to the HMO's basic line of business (termed "options"), and those involving application of knowledge gained through the HMO's basic line of business for related clinical and administrative applications (termed "services").

Figure 19 shows the percentage of HMOs offering five different diversification options in 1990; 46.0% of plans offered one or more of these options. The five options and the definitions used in the survey are:

- *Open-Ended or Self-Referral Options* (20.4% of plans): Individuals are enrolled in the HMO but may self-refer to providers outside the network, typically with deductibles or extensive cost sharing required.
- *PPO Options (27.3% of plans):* Individuals are not enrolled in the HMO, but the plan offers an option for individuals to receive more comprehensive benefits and/or have fewer cost sharing requirements if the HMO's or a specified provider network is used.

Figure 18

Percentage of Plans with Agreements with Other HMOs to Meet Needs of National Accounts, by Plan Type, Plans Over Three Years Old, 1990

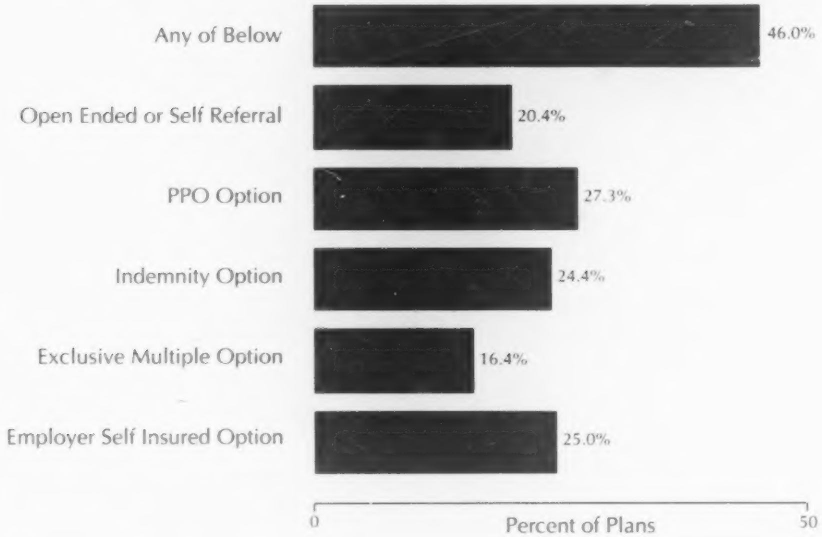


Source: GHAA's Annual HMO Industry Survey

- *Indemnity Option (24.4% of plans):* The HMO offers an indemnity insurance option.
- *Exclusive Multiple Option (16.4%):* The HMO is part of an entity that offers employers the ability to substitute a total replacement product for their current health benefits.
- *Employer Self-Insured Option (25.0%).* The HMO offers employers an ability to share some or all of the risk for HMO enrollees rather than having the HMO absorb it on a fully prepaid basis.

Plans offering one or more of these options were most likely to be IPAs (57.6% offered them) and least likely to be group model plans (18.2%). There was no consistent pattern by plan size; older plans were somewhat less likely to offer these options. The most striking difference was the considerably greater tendency of commercially insured plans to offer these options (Exhibit 11). This was also the case in 1989 and reflects the fact that a number of commercial insurers have made a deliberate business decision to offer an integrated set of managed care products across their indemnity and HMO base. As in 1989, this degree of integration between indemnity and HMO offerings tends not to apply to HMOs owned by Blue Cross and Blue Shield organizations; these HMOs are about as likely to offer the options noted as other HMOs.

Figure 19
Percent of Plans Offering Various Product Options, Plans Over Three Years Old, 1990



Source: GHAA's Annual HMO Industry Survey

Exhibit 11
Percent of HMOs With Various Diversification Options by Ownership, Plans Over Three Years Old, 1990

	All Plans	Commercial Insurers	BC/BS Plans	All Others
Any of Five Specified Options	46%	72%	29%	40%
Open-ended Option	20%	39%	10%	16%
PPO Option	27%	61%	10%	18%
Indemnity Option	24%	66%	8%	12%
Exclusive Multiple Option	16%	47%	10%	6%
Employer Self-insured Option	25%	49%	16%	18%

Source: GHAA's Annual HMO Industry Survey

Compared to 1989, it appears that a considerably higher percentage of plans (54% versus 34%) offered one or more of these options in 1990. However, because the survey response rate has been growing, including broader participation by commercially insured HMOs, trends are best analyzed by excluding commercial insurer-owned plans from the analysis. Of plans not owned by commercial insurers or by Blue Cross and Blue Shield associations, 40% offered one or more of these options in 1990 compared to 36% in 1989. The most noticeable change among non-insurer owned plans from 1989 to 1990 was a growth in the percentage of plans offering an open-ended option; 16% offered these in 1990 compared to 9% in 1989. The percentage offering self-insured options also increased to 18% from 15%.

Blue Cross and Blue Shield-owned plans also were more likely to offer self-insured options in 1990 (16% versus 10% in 1989), but a somewhat smaller percentage offered open-ended or PPO options in 1990 (10% versus 12% for each option in each year).

Previous years have shown little change in the percentage of plans offering various options. After partially accounting for the more representative response to the 1990 survey, 1990 changes seem somewhat greater. The most noticeable change was the growth in the percentage of HMOs that offered open-ended or self-referral options in 1990. Furthermore, this growth appears to be continuing and possibly accelerating in 1991, according to GHAA's year end 1990 member survey as reported in the *HMO Market Position Report*.[55]

Figure 20 summarizes the extent to which HMOs in 1990 used the capabilities developed for their basic line of business to offer various independent services. In total, about a third of the plans (34.5%) offered such services. Most commonly offered were utilization review services (21.0%), free-standing benefit coverage (16.4%, defined as coverage marketed separately for a specific benefit only, such as mental health), and claims processing services (12.9%). The 1989 survey did not specifically address this topic. The 1990 statistics, however, are similar to those for 1988, the last year in which they were included in the survey.

Finally, the survey asked plans whether or not they offered a long-term care product. A total of 17 plans (4.9% of established plans responding) indicated that they offered such a product. At least six of these appear to be products offered with the same insurance company; several represent Social HMOs, which offer expanded long-term care benefits to Medicare beneficiaries under a demonstration project.

Employer and Marketplace Pressures

Concern over the rapid escalation of health care costs, combined with budgetary constraints in both the public and private sectors, serve as major environmental pressures influencing the development of the health care system. Total health care expenditures in the United States rose from $249.1 billion in 1980 to $604.1 billion in 1989, a 243% increase that outstripped general inflation and accounted for 11.6% of the gross national product in 1989.[56]

These increases have translated into considerable growth in health benefits costs faced by purchasers. A recent study by A. Foster Higgins and Company found that per-employee costs for health benefits increased 17% from 1989 to 1990, slightly greater than the prior year; they estimate that, if current trends continue, the average cost could top $20,000 per employee by the year 2000.[57] A 1990 national executive poll by *Business and Health* magazine found that rising health insurance premiums were the #1 health issue for employers. Eighty-one percent indicated they would increase the employee share of premium costs to trim costs, 80% said they would increase deductibles, and 71% would increase copayments.[58]

These cost pressures have also encouraged purchasers to focus on the overall design of their health

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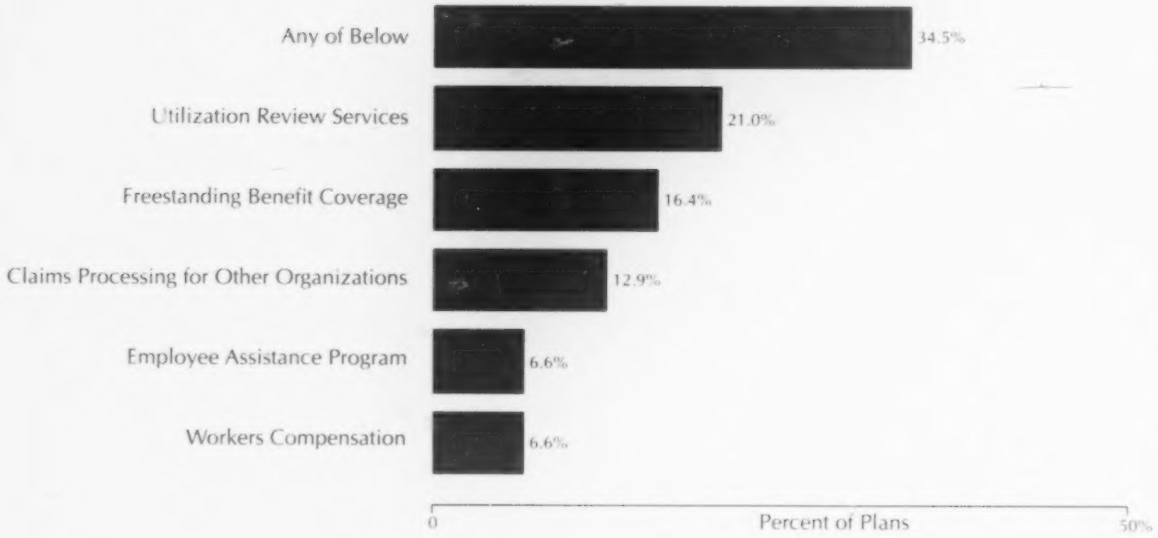
[55] Because the *HMO Market Position Report* is based on a sample oriented toward larger plans, statistics may vary from the industry averages reported here. Nonetheless, the trends identified within the two reports have been the same historically. The *HMO Market Position Report* results suggest that growth in open-ended options may turn out to be considerable in 1991. Of those responding to the survey, 21% offered an open-ended option at year end 1990. An additional 5% initiated such an offering in January 1991; another 19% said they had plans to have such an offering by year end 1991.

[56] Helen C. Lazenby and Suzanne W. Letsch, "National Health Expenditures, 1989" *Health Care Financing Review* 12: 1-26, Winter 1990.

[57] "Report 1: Indemnity Plans: Cost, Design, and Funding" *Foster Higgins Health Care Benefits Survey* (Princeton, N.J., 1991).

[58] "*Business and Health*'s 1990 National Executive Poll on Health Care Costs and Benefits," Business and Health 8: 24+, April 1990.

Figure 20
Percent of Plans Offering Various Services, Plans Over Three Years Old, 1990



Source: GHAA's Annual HMO Industry Survey

benefit plans, with many making changes to provide greater incentives for employees to join managed care plans with greater integration between financing and delivery. According to the U.S. Bureau of Labor Statistics, of participants in health benefit plans offered by medium and large-sized firms in 1989, 17% were in HMOs and 10% in PPOs, up from 13% and 1% respectively in 1986.[59] The Health Insurance Association of America's 1989 employer survey shows higher market penetration for managed care plans than the BLS estimates.[60]

To obtain a perspective on how environmental and purchaser concerns may influence the HMO industry, GHAA's Annual HMO Industry Survey asked plans to assess perceived 1990 employer pressure in a number of specific areas. In most cases, these were the same areas covered in 1988, allowing for an assessment of trends. For each specific kind of pressure, plans were asked to rate the extent to which they were feeling employer pressure to implement the change as none, limited, moderate, or heavy (Table 29). Three broad areas were covered by the questions: health benefits design, HMO benefit packages, and HMO rating methods.

Health Benefits Design

Figure 21 indicates the percentage of plans perceiving moderate or heavy pressure for change in a number of areas relating to the design of the employer's health benefit program. The most commonly cited pressure—perceived as moderate or heavy by 66.7% of plans—was to reduce the number of HMOs offered. Perceptions in 1990 were similar to those in 1988, but a larger percentage of plans perceived these pressures to be heavy in 1990 as opposed to 1988 (29.2% versus 20.0%). While these statistics do not necessarily reflect a movement away from a commitment toward HMOs among employers, they probably do reflect the more active approach

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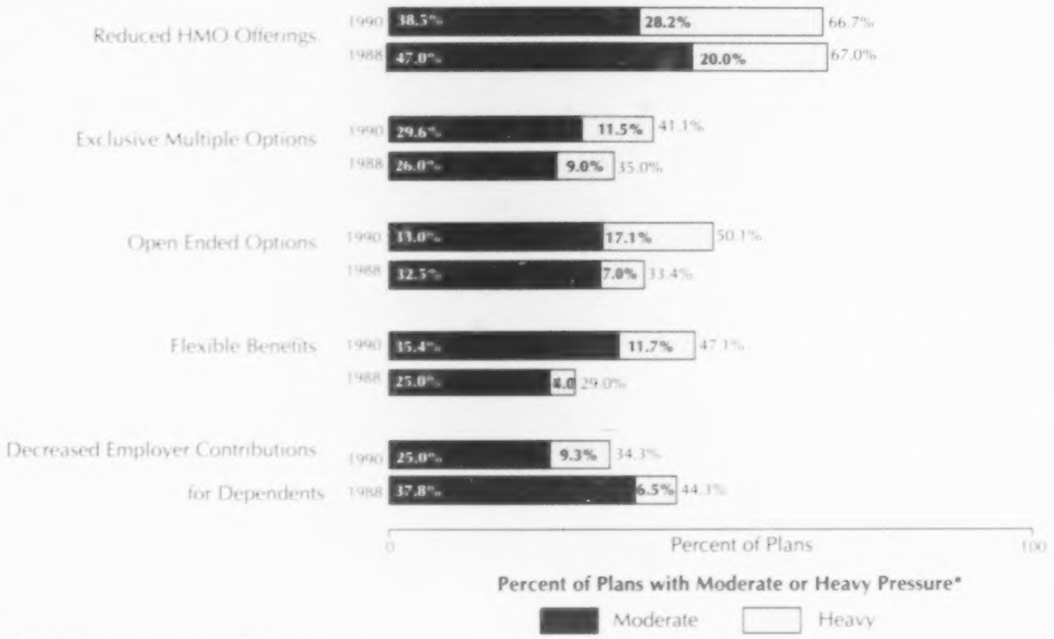
[59] Bureau of Labor Statistics, *Employee Benefits in Medium and Large Firms*, 1989 Bulletin 2363 (U.S. Department of Labor, Washington, D.C., June 1990).

[60] Jon Gabel et al., "Employer Sponsored Health Insurance, 1989" *Health Affairs* pp. 161-175, Fall 1990.

Figure 21
HMO Perceptions of Employer Pressures on Health Benefits Design, Plans Over Three Years Old, 1988–1990



*Other choices were none or limited pressure.
Source: GHAA's Annual HMO Industry Survey

many employers are taking to assess the value provided by each HMO and to streamline the overall design of the employer's health benefits offerings.

This perspective probably also explains why plans perceived moderate to heavy pressure for open-ended HMO options (50.1%), for flexible benefit programs (i.e., cafeteria plans, 47.1%), and for exclusive multiple options (41.1%). Because open-ended plans include an out-of-network component, some employers may feel that these plans can attract more individuals into HMOs and assist in streamlining the number of choices made available through the employer's benefit program. In contrast, the attraction of flexible benefit programs is in providing a greater range of choice to meet different employees' needs. Typically, flexible benefit programs include a less comprehensive health benefit option, which employers also may perceive as creating financial incentives to lower utilization. Because HMOs tend to offer comprehensive benefits and premiums are priced consistent with this, less comprehensive benefit plans can place HMOs at a competitive disadvantage by attracting healthier individuals.

Between 1988 and 1990, the percentage of plans perceiving moderate to heavy pressure from employers over open-ended options and flexible benefit programs increased; pressure for exclusive multiple options was relatively steady despite a slight increase. In contrast, a smaller percentage of plans perceived pressures to decrease the dependent contribution in 1990; it could be some employers have already increased contributions.

HMO Benefit Packages

Figure 22 indicates the percentage of plans perceiving moderate to heavy pressure from employers to make various changes in the HMO benefit package in 1988 and 1990. In both years, the greatest pressure felt was to increase the amount of patient cost sharing; 57.5% of plans perceived moderate to heavy pressure in this area in 1990, up from 47.3% in 1988. In 1990, only 9.0% of plans perceived no pressure for increased cost sharing. Traditionally, HMOs have focused on first dollar comprehensive coverage, relying on the design of the delivery system rather than patient financial incentives to encourage cost-effective practice.

In contrast, perceived pressures to expand substance abuse and mental health benefits appear to have diminished somewhat in 1990 from 1988, although 24.1% and 20.7% of plans, respectively, still perceived moderate to heavy pressure in these two areas. Although the decline could be an artifact of changes in responding plans between 1988 and 1990, it may also reflect growing concern among employers over the costs of these benefits. Of those responding to the A. Foster Higgins survey, 62% felt that higher mental health and substance abuse claims were a major factor driving up costs in the indemnity plan; 46% who had placed limits on these benefits in their indemnity plans felt that the initiatives had a significant or moderate effect on costs.[61]

Finally, the plans perceived relatively limited pressure from employers to implement HMO benefit packages that do not meet the federal qualifications standards or to unbundle basic benefits (e.g., mental health or substance abuse) from comprehensive coverage and offer them on a stand-alone basis. Fewer than one-fifth of established plans perceived pressures for these changes as moderate or heavy; almost half (45.5%) perceived no pressure for non-federally qualified packages.

HMO Rating Methods

HMOs also perceived considerable pressure from employers to modify their rating methods (Figure 23).

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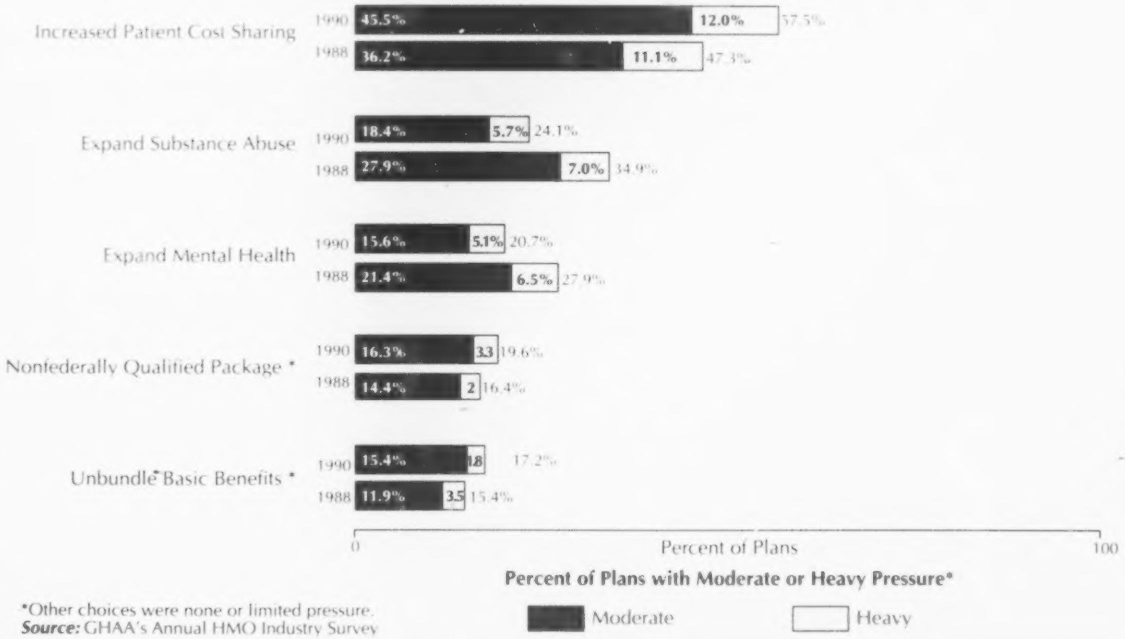
[61] "Report a: Indemnity Plans: Cost, Design, and Funding" *Foster Higgins Health Care Benefits Survey* (Foster Higgins, Princeton N.J., 1991)

Figure 22
HMO Perceptions of Employer Pressures on HMO Benefit Package, Plans Over Three Years Old, 1988–1990

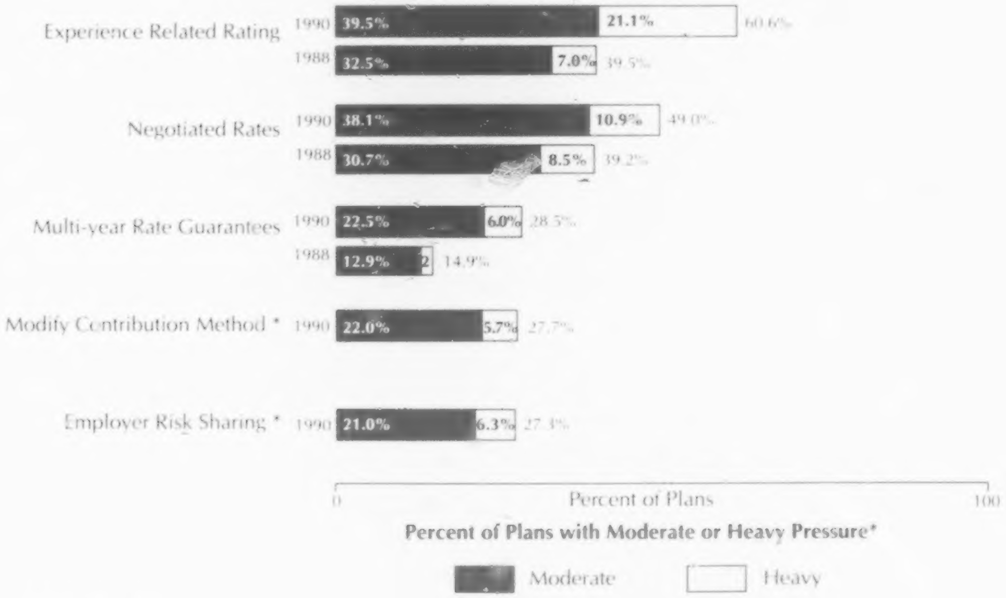


*Other choices were none or limited pressure.
Source: GHAA's Annual HMO Industry Survey

In 1990, 60.6% of plans perceived what they characterized as moderate to heavy pressure from employers to require HMO use of group experience-related rating methods; only 7.2% perceived no pressure in this area. Compared to 1988, a larger share of plans perceived these pressures in 1990. The difference was entirely attributable to a growth in the percentage of plans perceiving heavy pressure in this area—an increase from 7% to 21% between the two years.

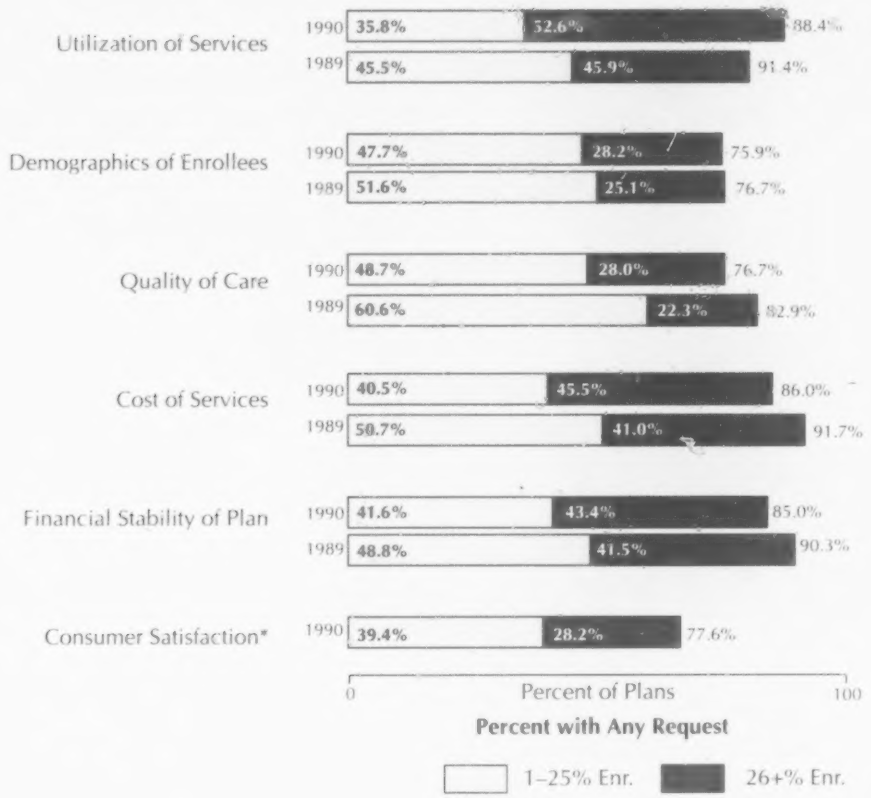
Forty-nine percent of plans perceived moderate to heavy pressure from employers to use negotiation in HMO rate setting in 1990; as with group-related rating, this percentage for 1990 was higher than in 1988. More plans also perceived pressures to use HMO multiyear rate guarantees or rate caps in 1990 than in 1988, with 28.5% perceiving moderate or heavy pressure in 1990 (versus 14.9% in 1988). Finally, 27.7% of plans perceived moderate to heavy pressure to modify the methods historically used to establish employer contributions in 1990; and 27.3% perceived moderate to heavy pressure to allow employers to share risk with the HMO rather than have the traditional fully prepaid coverage with the HMO fully at risk. Because these last two areas were not included in the survey in 1988, no trend analysis is possible.

Figure 23
HMO Perceptions of Employer Pressures on HMO Rating Methods, Plans Over Three Years Old, 1988–1990



* Not asked in 1988.
**Other choices were none or limited pressure.
Source: GHAA's Annual HMO Industry Survey

Figure 24
Employer Requests for HMO Data by Type, Plans Over Three Years Old, 1989–1990



Employer Requests for HMO Data

One result of the increased involvement by employers in the design of employee health benefit options has been the requests made for a variety of data from HMOs. Figure 24 indicates the percentage of plans experiencing employer requests for data in 1990; a sense of the magnitude of requests is provided by the breakdown of plans into those for which requests accounted for 25% or less of the plan's membership and those for which requests covered a larger share of the membership. Although size of accounts vary in general and across plans, one could assume crudely that plans with a larger share of members included in requests have had more employers making requests. The six areas of data requests covered are utilization of services, enrollee demographics, quality of care, cost of services, financial stability of plan, and consumer satisfaction. All but consumer satisfaction have been included in previous years' surveys.

In general, the results indicate that most plans received requests for each of these types of data in 1990; since this was also true in 1989, there was reasonably little change across the two years. However, it appears that more employers made requests in 1990 than in 1989, as the percentage of plans experiencing requests covering 26% of the membership or more generally grew in 1990.

This topic will be further addressed in a special GHAA report on HMO Data Capabilities and Employer Data Requests, to be published in 1991.

VIII. SPECIAL ANALYSIS: THE AVERAGE ENROLLEE EXPERIENCE

(WEIGHTED AVERAGES)

This section presents information of particular interest to users more interested in characterizing the experience of HMO enrollees than of plans. Because the major objective of the *Profile* is to describe the practices of plans that make up the HMO industry, statistics in the *HMO Industry Profile* represent averages of each plan, treating them equally regardless of size. This section of the *Profile* presents summary statistics weighted by plan enrollment.[62] The statistics are likely to vary most from those previously presented for features that vary heavily with plan size. While subject to some limitations, the weighted results provide a better estimate of the average HMO enrollee's experience than is otherwise available.

Premiums and Benefits

Exhibit 12 shows the best estimate available from the survey on the average premium HMO an enrollee encounters and the benefit packages purchased. The average enrollee was in a plan charging $122.84 monthly ($16.69 enrollee share) for single contracts and $313.99 monthly ($65.16 enrollee share) for families.[63] These premiums were 17.7% and 19.6% higher, on average, than in 1989.

Compared to plan averages, these statistics are similar but not identical. The average enrollee's share of the premium cost for family coverage was about $10 less than would be estimated from the plan averages. This occurs through a combination of slightly lower premiums, once weighted, and an employer contribution that accounted for a slightly larger share of the premium. In contrast, 1990 premium *increases* from 1989 on a weighted average basis are somewhat higher than the average plan increase. This is perhaps unique to 1990, as in previous years larger plans have tended to have lower than average premium rates.

Exhibit 12 also displays some characteristics of the benefits offered by HMOs. The weighted analysis indicates that 86% of enrollees are in plans whose best-selling package has no cost sharing for hospital services, and 44% are in plans with no cost sharing for primary care visits. These figures are higher than comparable figures for the average plan. Smaller differences in the same direction exist for laboratory and x-ray services and the availability of prescription drug services. These benefits were selected because they account for the vast majority of services used by the typical enrollee. Hence, the cost sharing faced by the typical enrollee is likely to be somewhat overstated by the industry averages.

The weighted results also indicate that a larger share of enrollees is in plans offering various transplant coverage in at least one benefit package (with the exception of pancreas transplants) than reflected in statistics for individual plans.

Rating Methods Used

In total, 45.4% of enrollees in established plans

---

[62] Weights are based on the March 31, 1990, enrollment figures provided by plans. As with the traditional analysis in the *Profile*, the weighted analysis characterizes the responding plans; statistics are weighted by respondents, not industry totals. Given the highly uneven distribution of HMO enrollment by plan, the interrelationship among plan characteristics, and the lack of causal models associating these characteristics to the features examined, such an industry-wide adjustment would be extremely complex and potentially problematic. Readers should note, however, that the responding plans (not accounting for item nonresponse) include four-fifths of all plans over 3 years old; hence, the statistics are likely to be fairly generalizable to all enrollees.

[63] These results assume, as does the more traditional analysis, that the premium experience for the plan's largest single account can be generalized. Although unlikely to be fully the case, HMO rate-setting methods and the fact that most enrollees are included in the best-selling package make this less problematic than otherwise. Note that this limitation in interpretation does not appear to apply to statistics on premium increases, as most plans indicated increases were typical of their other accounts.

Exhibit 12
Profile of the Average Enrollee Premium and Benefit Experience in HMOs Over Three Years Old, 1990[1]

PREMIUMS (Largest Single Account)	**Monthly**	**Enrollee Share**	**% Increase 1990**
Single Contract	$122.84	$16.69	17.7%
Family Contract	$313.99	$65.16	19.6%

BENEFITS (Best Selling Package)	
Hospitalization	
% With No Cost Sharing	86.0%
Ambulatory	
With No Cost Sharing on Primary Care Visits	43.5
With a Fixed Copayment	56.4
Average Copayment (if any)	$5.28
With No Cost Sharing on Lab Tests	88.4
With No Cost Sharing on X Rays	88.4
With Coverage for Prescribed Drugs	98.5

TRANSPLANTS COVERED (Any Benefit Package)	
Kidney	99.2
Liver (Children with Biliary Atresia)	99.1
Liver (Other)	74.5
Heart	84.6
Heart Lung	62.1
Pancreas	30.3
Cornea	97.9

Notes:

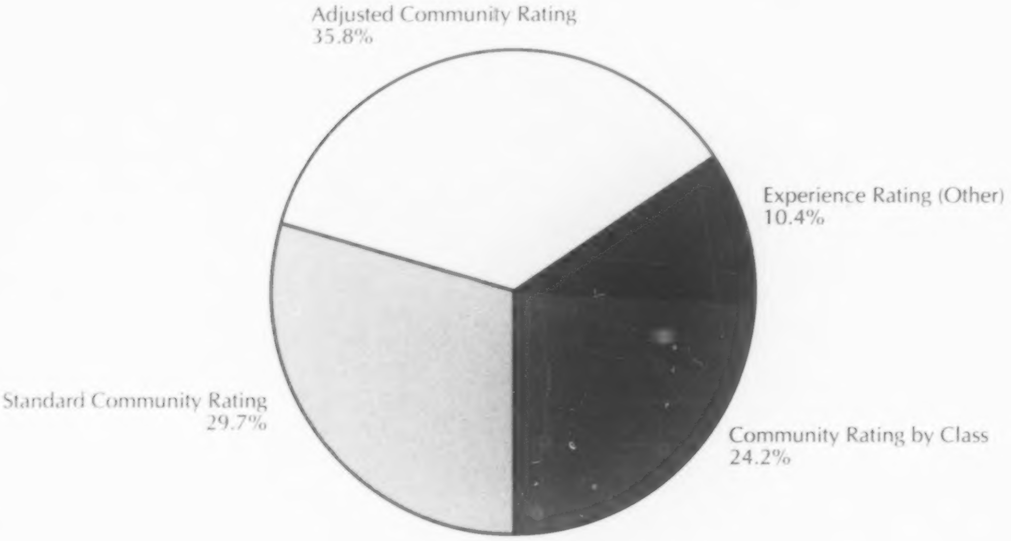
1. Statistics are weighted to reflect the enrollment in each plan.
2. Excludes enrollees in plans not providing this information, although they provided premium information.

Source: GHAA's Annual HMO Industry Survey

were in plans that made some use of standard community rating; 42.4%, 46.9%, and 20.7%, respectively, were in plans using community rating by class, adjusted community rating, and other forms of experience rating. Of these 20.7% of plans making some use of methods distinct from those allowed under the federal HMO Act, 37.6% made some use of rate-setting methods involving a retrospective adjustment. Hence, fewer than 10% of enrollees were in plans using this approach.

Figure 25 shows the distribution of enrollees in established plans according to the method used to set their premiums. These data reflect the experience of 26.2 million HMO enrollees. Of these, 29.7% were rated using standard community rating, 24.2% using community rating by class, 35.8% by adjusted

Figure 25
Distribution of All Enrollees in Plans Over Three Years Old, by Rating Method Used to Set Premiums, 1990[1]



1. Responding plans to this item had 26.2 million enrollees.
Source: GHAA's Annual HMO Industry Survey

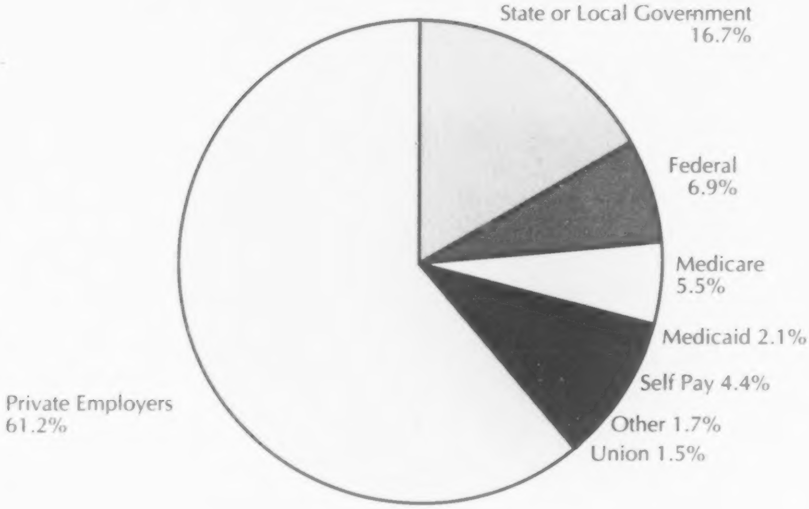
community rating, and 10.4% by other forms of group experience-based rating.

These results differ considerably from plan averages unweighted by plan size because rating methods vary with factors associated with plan size. In particular, the weighted results show that considerably more enrollees fall under adjusted community rating approaches, and considerably fewer fall under non-federally qualified approaches. The combination of these two categories shows a higher share of enrollment rated using group-specific approaches than is apparent from the unweighted statistics.

Enrollment by Payor Source

Figure 26 profiles the distribution of enrollment in established plans by payor source; 19.6 million enrollees were included in plans responding to this item. The results indicated that 61.2% are from pri-

Figure 26
Distribution of All Enrollees in Plans Over Three Years Old, by Source of Account, 1990[1]



[1] Responding plans to this item had 19.6 million enrollees.
Source: GHAA's Annual HMO Industry Survey

vate employer accounts, 16.7% from state and local government accounts, and 6.9% from federal accounts. Smaller shares of enrollment come from Medicare (5.5%), Medicaid (2.1%), self-pay (4.4%), union (1.5%), and others (1.7%).

These results do not differ greatly from the average mix of enrollment in a plan. The most notable differences were that when viewed in aggregate in terms of the total enrollment in established plans, a higher share of enrollment came from Medicare and self-pay and a lower share from Medicaid.

Enrollment by Options Available in a Plan

Exhibit 13 shows the percentage of enrollees who were in plans that offer various options. In total, 91.8% of enrollees were in plans that enroll small employer groups (under 25 employees), 41.2% in plans that enroll individuals on a nonconversion basis (excluding Medicare wrap products), and 67.3% in plans that offer Medicare supplemental or wraparound products. Because larger plans were

Exhibit 13
Percentage Enrollees in Plans Offering Various Options, 1990[1]

TYPE OF OPTION	% OF ENROLLEES
Enrolls Small Employer Groups	91.8%
Enrolls Individuals (Non Conversion)	41.2
Offers Medicare Supplemental Product	67.3
Has Multi-HMO Agreements for National Accounts	61.6%
Offers Open Ended Option (Self Referral)	21.4%
Offers PPO Option	26.0
Offers Indemnity Option	19.2
Offers Exclusive Multiple Option	8.8
Offers Employer Self Insured Option	16.9

Notes:

1. Statistics are weighted to reflect the enrollment in each plan. Results are based solely on plans over three years old. The vast majority of HMO enrollees are in these plans rather than younger ones.

Source: GHAA's Annual HMO Industry Survey

more likely to offer these options, a larger share of enrollees were in plans with these practices than is reflected in the share of plans offering them.

Sixty-two percent of enrollees were in plans that have or are developing agreements with other HMOs to address the needs of national accounts or employers wishing to offer HMO options under a single umbrella; this statistic is higher than the share of HMOs (unweighted) with agreements. Finally, 21.4% were in plans with open-ended products, 26.0% in plans with PPOs, 19.2% in plans with indemnity products, 8.8% in plans with exclusive multiple options, and 16.9% in plans with employer self-insured options. The enrollee-based percentages are similar to the plan-based percentages in terms of open-ended and PPO products; a smaller share of enrollees is in plans offering the remaining products than is reflected in the plan percentages.

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GUIDE TO USING THE DETAILED TABLES

All detailed tables contain statistics for all responding plans and separate statistics for those plans with more than 3 years' operational experience. *Caution should be used in examining data in tables to be sure that the data used are for the desired plan age group.* Tables present data by plan age as either separate columns or as sequential rows of data. The data are ordered with totals first for all plans, followed by data for plans over 3 years old.

Most tables provide separate statistics for plans of various characteristics. The characteristics are consistent across tables and include model, region, size, plan age, tax status, federal qualification status, ownership, and multistate organization.

Definitions used in arraying plans by these characteristics are given below.

Model Type (Defined in the questionnaire)

Plans were asked to identify which model best reflects the *predominant* components of the plan.

Staff: An organized prepaid health care system that delivers health services through a salaried physician group that is employed by the HMO unit.

Group: An organized prepaid health care system that contracts with one independent group practice to provide health services.

Network: An organized prepaid health care system that contracts with two or more independent group practices to provide health services.

IPA: An organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations of physicians in independent practice, and/or with one or more multispecialty group practices (but predominately organized around solo/single specialty practices) to provide health services.

Region (GHAA-coded based on the state that the plan indicated had the largest share of its enrollment: groupings are based on U.S. Census regions)

New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

Middle-Atlantic: New Jersey, New York, and Pennsylvania.

South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South Central: Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas.

Mountain: Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, and Wyoming.

Pacific: Alaska, California, Guam, Hawaii, Washington, and Oregon.

Size

The size of the plan was based on collapsed codes from plan-reported data on total enrollment as of March 31, 1990.

Tax Status

Tax status was requested as of March 31, 1990.

Federal Qualification Status

Federal qualification status was based on plan-reported data. Plans indicating that they were federally qualified in some service areas were included in the federally qualified group. Federal qualification status was requested as of March 31, 1990.

Ownership

Ownership was based on recoding from plan-reported data. "Independent" refers to plans independently owned and operated and includes plans reported under "other" in previous editions of the Profile. These include cooperatives, university-sponsored plans, publicly sponsored plans, and others. "Provider-sponsored plans" refers to plans owned by physicians, hospitals, or both physicians and hospitals, either as independent plans or as parts of chains.

Multistate Organization

Multistate classification defines whether or not a plan is part of an organization owning different HMOs in two or more states. Single-entity HMOs with a contiguous service area in two states were consistently classified as a single state organization. Responses were audited and corrected for consistency among plans of the same ownership, but otherwise are based on respondent classification.

Table 1 Selected Characteristics of Responding HMOs, by Plan Age, 1990[1]

	All Plans			Plans > 3 Years Old			Plans ≤ 3 Years Old		
Selected Characteristics	**No. of Plans**	**% of Plans**	**% of Enrollees**	**No. of Plans**	**% of Plans**	**% of Enrollees**	**No. of Plans**	**% of Plans**	**% of Enrollees**
TOTAL	372	100.0	100.0	356	100.0	100.0	16	100.0	100.0
MODEL									
Staff	47	12.6	13.9	44	12.4	13.8	3	18.8	25.0
Group	55	14.8	34.2	55	15.4	34.6	0	–	–
Network	51	13.7	15.1	47	13.2	15.2	4	25.0	8.4
IPA	219	58.9	36.8	210	59.0	36.5	9	56.3	66.5
REGION									
New England	28	7.5	8.0	25	7.0	8.0	3	18.8	5.2
Middle Atlantic	47	12.6	10.9	45	12.6	10.9	2	12.5	7.0
South Alantic	58	15.6	10.9	55	15.4	10.7	3	18.8	25.3
Midwest	114	30.6	22.7	109	30.6	22.6	5	31.3	28.9
South Central	47	12.6	7.4	46	12.9	7.2	1	6.3	30.2
Mountain	30	8.1	6.1	30	8.4	6.1	0	–	–
Pacific	48	12.9	34.2	46	12.9	34.5	2	12.5	3.3
SIZE									
0–19,999	131	35.2	5.0	118	33.1	4.7	13	81.3	37.1
20,000–49,999	106	28.5	11.8	105	29.5	11.8	1	6.3	15.2
50,000–99,999	60	16.1	15.1	58	16.3	14.8	2	12.5	47.7
100,000–249,999	57	15.3	28.9	57	16.0	29.2	0	–	–
250,000 +	18	4.8	39.2	18	5.1	39.6	0	–	–
AGE									
2–3	16	4.3	1.0	–	–	–	16	100.0	100.0
4–7	196	52.7	23.8	196	55.1	24.1	–	–	–
8–15	105	28.2	33.5	105	29.5	33.9	–	–	–
16–25	41	11.0	13.9	41	11.5	14.1	–	–	–
26 +	14	3.8	27.7	14	3.9	28.0	–	–	–
TAX STATUS									
Nonprofit	133	35.8	58.1	131	36.8	58.5	2	12.5	11.1
For-profit	239	64.2	41.9	225	63.2	41.5	14	87.5	88.9
QUALIFICATION STATUS									
Federally Qualified	234	62.9	79.8	229	64.3	80.1	5	31.3	51.2
Non-qualified	138	37.1	20.2	127	35.7	19.9	11	68.8	48.8
OWNERSHIP									
Blue Cross/Blue Shieid	54	14.5	11.6	53	14.9	11.6	1	6.3	17.5
Commercial Insurer	91	24.5	10.2	86	24.2	10.1	5	31.3	13.0
National HMO Company	47	12.6	36.4	47	13.2	36.7	0	–	–
Independent	89	23.9	25.8	85	23.9	25.9	4	25.0	23.2
Hospital	32	8.6	7.5	29	8.1	7.2	3	18.8	36.4
Physician	24	6.5	3.2	24	6.7	3.2	0	–	–
Hospital & Physician	20	5.4	3.0	20	5.6	3.0	0	–	–
Other	15	4.0	2.3	12	3.4	2.2	3	18.8	9.9
MULTISTATE ORGANIZATION									
Yes	152	40.9	52.2	146	41.0	52.3	6	37.5	43.2
No	220	59.1	47.8	210	59.0	47.7	10	62.5	56.8

Notes:

1. Based on plan characteristics as of March 31, 1990.

Source: GHAA's Annual HMO Industry Survey

Table 2 Percent of HMOs Offering Coverage for Basic Benefits[1] in Their Best Selling Benefit Package and Extent of Coverage Offered, by Plan Age, 1990[2]

		Type of Coverage					
Type of Benefit, by Plan Age	**# of Respondents[2]**	**Any Coverage**	**No Limits & No Copays**	**Limits Only**	**Copays Only**	**Limits & Copays**	**Not Covered**
ALL PLANS							
Primary Care Visits	336	100.0	27.7	0.3	69.9	2.1	0.0
Hospitalization	336	100.0	74.1	3.6	20.5	1.8	0.0
Outpatient Lab	327	100.0	83.2	1.8	14.1	0.9	0.0
Outpatient X-ray	326	100.0	82.8	1.8	14.4	0.9	0.0
Prenatal Care	326	99.4	48.8	0.6	48.5	1.5	0.6
Well Baby Care	326	99.4	40.5	1.8	54.6	2.5	0.6
Emergency Care	327	100.0	15.6	0.9	76.8	6.7	0.0
Home Health	326	99.7	57.1	19.9	14.1	8.6	0.3
Outpatient Mental Health	334	99.1	0.6	12.0	0.9	85.6	0.9
Drug/Alcohol Detox	332	98.8	30.1	27.7	10.2	30.7	1.2
Hearing Tests	325	89.1	33.2	8.6	33.5	13.8	10.8
Vision Tests	323	90.1	23.8	12.7	31.6	22.0	9.9
Physical Therapy	327	100.0	12.2	40.1	6.7	41.0	0.0
Inhalation Therapy	310	95.5	41.3	18.4	14.5	21.3	4.5
Speech Therapy	324	92.3	9.9	39.5	5.6	37.3	7.7
Occupational Therapy	326	87.4	10.4	36.8	6.1	34.0	12.6
PLANS > 3 YEARS							
Primary Care Visits	324	100.0	27.8	0.3	70.1	1.9	0.0
Hospitalization	324	100.0	73.4	3.7	21.0	1.9	0.0
Outpatient Lab	315	100.0	82.5	1.9	14.6	1.0	0.0
Outpatient X-ray	314	100.0	82.2	1.9	15.0	1.0	0.0
Prenatal Care	314	99.4	49.0	0.3	48.4	1.6	0.6
Well Baby Care	314	99.4	40.8	1.6	54.5	2.5	0.6
Emergency Care	315	100.0	15.9	1.0	76.5	6.7	0.0
Home Health	314	99.7	57.3	20.1	14.0	8.3	0.3
Outpatient Mental Health	322	99.4	0.6	12.4	0.6	35.7	0.6
Drug/Alcohol Detox	321	98.8	29.6	28.0	10.3	30.8	1.2
Hearing Tests	313	89.8	33.9	8.6	32.9	14.4	10.2
Vision Tests	312	90.4	24.0	12.8	31.1	22.4	9.6
Physical Therapy	315	100.0	12.4	38.7	7.0	41.9	0.0
Inhalation Therapy	299	95.7	41.5	17.4	15.1	21.7	4.3
Speech Therapy	312	92.0	9.9	38.1	5.8	38.1	8.0
Occupational Therapy	314	86.9	10.5	35.4	6.4	34.7	13.1
PLANS ≤ 3 YEARS							
Primary Care Visits	12	100.0	25.0	0.0	66.7	8.3	0.0
Hospitalization	12	100.0	91.7	0.0	8.3	0.0	0.0
Outpatient Lab	12	100.0	100.0	0.0	0.0	0.0	0.0
Outpatient X-ray	12	100.0	100.0	0.0	0.0	0.0	0.0
Prenatal Care	12	100.0	41.7	8.3	50.0	0.0	0.0
Well Baby Care	12	100.0	33.3	8.3	58.3	0.0	0.0
Emergency Care	12	100.0	8.3	0.0	33.3	8.3	0.0
Home Health	12	100.0	50.0	16.7	16.7	16.7	0.0
Outpatient Mental Health	12	91.7	0.0	0.0	8.3	83.3	8.3
Drug/Alcohol Detox	12	100.0	45.5	18.2	9.1	27.3	0.0
Hearing Tests	12	75.0	16.7	8.3	50.0	0.0	25.0
Vision Tests	12	81.8	18.2	9.1	45.5	9.1	18.2
Physical Therapy	12	100.0	8.3	75.0	0.0	16.7	0.0
Inhalation Therapy	12	90.9	36.4	45.5	0.0	9.1	9.1
Speech Therapy	12	100.0	8.3	75.0	0.0	16.7	0.0
Occupational Therapy	12	100.0	8.3	75.0	0.0	16.7	0.0

Notes:

1. Basic benefits are defined as those federally qualified plans are required to offer. Vision and hearing tests are only required for children through age 17.
2. Excludes plans whose best selling package is a Medicare or Medicaid package (n = 28). Includes benefits covered through riders typically (i.e., at least 50% of the time) purchased with the package.

Source: GHAA's Annual HMO Industry Survey

Table 3

Percent of HMOs Offering Coverage for Basic Benefits[1] in Their Best Selling Benefit Package and Extent of Coverage Offered, by Federal Qualification Status and Plan Age, 1990[2,3]

	Federally Qualified Plans					Non-Federally Qualified Plans				
Type of Benefit, by Plan Age	**No Limits & No Copays**	**Limits Only**	**Copays Only**	**Limits & Copays**	**Not Covered**	**No Limits & No Copays**	**Limits Only**	**Copays Only**	**Limits & Copays**	**Not Covered**
ALL PLANS										
Primary Care Visits	25.2	0.5	72.1	2.3	0.0	32.5	0.0	65.8	1.8	0.0
Hospitalization	75.7	2.7	20.7	0.9	0.0	71.1	5.3	20.2	3.5	0.0
Outpatient Lab	82.6	0.5	16.0	0.9	0.0	84.2	4.4	10.5	0.9	0.0
Outpatient X-ray	81.1	0.5	17.5	0.9	0.0	86.0	4.4	8.8	0.9	0.0
Prenatal Care	48.4	0.9	49.3	0.9	0.5	49.6	0.0	46.9	2.7	0.9
Well Baby Care	48.8	1.4	55.4	1.9	0.5	39.8	2.7	53.1	3.5	0.9
Emergency Care	15.5	0.9	78.4	5.2	0.0	15.8	0.9	73.7	9.6	0.0
Home Health	63.2	14.2	15.6	7.1	0.0	46.5	30.7	11.4	11.4	0.9
Outpatient Mental Health	0.5	7.7	0.9	90.5	0.5	0.9	20.2	0.9	76.3	1.8
Drug/Alcohol Detox	38.6	20.0	12.3	28.2	0.9	13.4	42.9	6.3	35.7	1.8
Hearing Tests	29.1	8.9	39.0	13.1	9.9	41.1	8.0	23.2	15.2	12.5
Vision Tests	24.1	11.3	38.7	19.3	6.6	23.4	15.3	18.0	27.0	16.2
Physical Therapy	8.9	40.4	7.0	43.7	0.0	18.4	39.5	6.1	36.0	0.0
Inhalation Therapy	40.3	15.9	17.4	22.4	4.0	43.1	22.9	9.2	19.3	5.5
Speech Therapy	8.5	40.1	6.1	41.0	4.2	12.5	38.4	4.5	30.4	14.3
Occupational Therapy	8.9	38.0	7.5	36.2	9.4	13.3	34.5	3.5	30.1	18.6
PLANS > 3 YEARS										
Primary Care Visits	25.2	0.5	72.0	2.3	0.0	33.0	0.0	66.1	0.9	0.0
Hospitalization	75.2	2.8	21.1	0.9	0.0	69.8	5.7	20.8	3.8	0.0
Outpatient Lab	82.3	0.5	16.3	1.0	0.0	83.0	4.7	11.3	0.9	0.0
Outpatient X-ray	80.8	0.5	17.8	1.0	0.0	84.9	4.7	9.4	0.9	0.0
Prenatal Care	48.8	0.5	49.3	1.0	0.5	49.5	0.0	46.7	2.9	1.0
Well Baby Care	41.1	1.0	55.5	1.9	0.5	40.0	2.9	52.4	3.8	1.0
Emergency Care	15.3	1.0	78.5	5.3	0.0	17.0	0.9	72.6	9.4	0.0
Home Health	63.0	14.4	15.4	7.2	0.0	46.2	31.1	11.3	10.4	0.9
Outpatient Mental Health	0.5	7.9	0.9	90.3	0.5	0.9	21.7	0.0	76.4	0.9
Drug/Alcohol Detox	38.0	20.4	12.5	28.2	0.9	12.4	43.8	5.7	36.2	1.9
Hearing Tests	29.7	9.1	38.3	13.4	9.6	42.3	7.7	22.1	16.3	11.5
Vision Tests	24.0	11.5	38.0	19.7	6.7	24.0	15.4	17.3	27.9	15.4
Physical Therapy	9.1	39.2	7.2	44.5	0.0	18.9	37.7	6.6	36.8	0.0
Inhalation Therapy	40.1	15.7	17.8	22.8	3.6	44.1	20.6	9.8	19.6	5.9
Speech Therapy	8.7	38.9	6.3	41.8	4.3	12.5	36.5	4.8	30.8	15.4
Occupational Therapy	9.1	36.8	7.7	36.8	9.6	13.3	32.4	3.8	30.5	20.0
PLANS ≤ 3 YEARS										
Primary Care Visits	25.0	0.0	75.0	0.0	0.0	25.0	0.0	62.5	12.5	0.0
Hospitalization	100.0	0.0	0.0	0.0	0.0	87.5	0.0	12.5	0.0	0.0
Outpatient Lab	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Outpatient X-ray	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Prenatal Care	25.0	25.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0
Well Baby Care	25.0	25.0	50.0	0.0	0.0	37.5	0.0	62.5	0.0	0.0
Emergency Care	25.0	0.0	75.0	0.0	0.0	0.0	0.0	87.5	12.5	0.0
Home Health	75.0	0.0	25.0	0.0	0.0	37.5	25.0	12.5	25.0	0.0
Outpatient Mental Health	0.0	0.0	0.0	100.0	0.0	0.0	0.0	12.5	75.0	12.5
Drug/Alcohol Detox	75.0	0.0	0.0	25.0	0.0	28.6	28.6	14.3	28.6	0.0
Hearing Tests	0.0	0.0	75.0	0.0	25.0	25.0	12.5	37.5	0.0	25.0
Vision Tests	25.0	0.0	75.0	0.0	0.0	14.3	14.3	28.6	14.3	28.6
Physical Therapy	0.0	100.0	0.0	0.0	0.0	12.5	62.5	0.0	25.0	0.0
Inhalation Therapy	50.0	25.0	0.0	0.0	25.0	28.6	57.1	0.0	14.3	0.0
Speech Therapy	0.0	100.0	0.0	0.0	0.0	12.5	62.5	0.0	25.0	0.0
Occupational Therapy	0.0	100.0	0.0	0.0	0.0	12.5	62.5	0.0	25.0	0.0

Notes:

1. Basic benefits are defined as those federally qualified plans are required to offer. Vision and hearing tests are only required for children through age 17.
2. Excludes plans whose best selling package is a Medicare or Medicaid package (n = 28). Includes benefits covered through riders typically (i.e., at least 50% of the time) purchased with the package.
3. See Table 2 for the number of plans responding for each type of benefit.

Source: GHAA's Annual HMO Industry Survey

Table 4 Percent of HMOs Offering Coverage for Selected Additional Benefits in Their Best Selling Benefit Package and Extent of Coverage Offered, by Plan Age, 1990[1,2]

Type of Benefit, by Plan Age	# of Respondents	Type of Coverage					
		Any Coverage	No Limits & No Copays	Limits Only	Copays Only	Limits & Copays	Not Covered
ALL PLANS							
Allergy Treatment	325	96.3	38.8	1.2	48.6	7.7	3.7
Skilled Nursing	323	97.8	31.9	48.3	5.6	12.1	2.2
Hospice Care	322	82.9	39.1	29.8	5.3	8.7	17.7
Prescribed Drugs	335	95.5	2.1	3.6	54.9	34.9	4.5
Inpatient Mental Health	334	94.6	0.9	53.0	0.9	39.8	5.4
Drug/Alcohol Rehabilitation	334	77.5	3.0	25.7	3.9	44.9	22.5
Podiatry Services	320	77.2	25.9	8.4	30.9	11.9	22.8
Chiropractic Services	321	50.5	19.9	4.7	13.4	12.5	49.5
External Prosthetic Devices	327	83.8	26.0	21.7	15.0	21.1	16.2
Durable Medical Equipment	327	83.5	24.8	21.1	15.0	22.6	16.5
Eyeglasses	326	23.6	0.3	5.8	2.5	15.0	76.4
Hearing Aids	326	17.8	3.4	5.8	1.2	7.4	82.2
TMJ Treatment	322	45.7	6.5	15.2	10.6	13.4	54.3
Preventive Dental	324	15.7	3.4	3.7	4.3	4.3	84.3
Restorative Dental	325	11.1	2.2	2.2	4.9	1.8	88.9
Dental for Accidental Injury	325	83.7	35.1	12.3	20.3	16.0	16.3
In vitro Fertilization	322	15.8	3.1	1.9	4.7	6.2	84.2
Cosmetic Surgery	326	9.2	1.2	4.6	0.3	3.1	90.8
PLANS > 3 YEARS							
Allergy Treatment	313	96.8	39.0	1.0	49.2	7.7	3.2
Skilled Nursing	311	97.7	31.5	48.6	5.8	11.9	2.3
Hospice Care	310	82.3	38.4	29.7	5.5	8.7	17.7
Prescribed Drugs	323	96.0	2.2	3.7	55.4	34.7	4.0
Inpatient Mental Health	322	94.4	0.9	53.1	0.6	39.8	5.6
Drug/Alcohol Rehabilitation	322	78.0	3.1	26.4	3.7	44.7	22.0
Podiatry Services	308	77.3	25.6	8.1	31.8	11.7	22.7
Chiropractic Services	311	49.8	19.6	4.2	13.2	12.9	50.2
External Prosthetic Devices	315	83.8	25.7	21.0	15.2	21.9	16.2
Durable Medical Equipment	315	83.5	24.8	20.3	15.2	23.2	16.5
Eyeglasses	314	22.9	0.3	5.7	2.2	14.6	77.1
Hearing Aids	314	18.2	3.5	6.1	1.0	7.6	81.8
TMJ Treatment	310	45.8	6.8	15.2	11.0	12.9	54.2
Preventive Dental	313	16.0	3.5	3.8	4.2	4.5	84.0
Restorative Dental	313	11.5	2.2	2.2	5.1	1.9	88.5
Dental for Accidental Injury	313	83.7	34.5	12.1	20.4	16.6	16.3
In vitro Fertilization	311	16.1	3.2	1.9	4.5	6.4	83.9
Cosmetic Surgery	314	9.2	1.3	4.5	0.3	3.2	90.8
PLANS ≤ 3 YEARS							
Allergy Treatment	12	83.3	33.3	8.3	33.3	8.3	16.7
Skilled Nursing	12	100.0	41.7	41.7	0.0	16.7	0.0
Hospice Care	12	100.0	58.3	33.3	0.0	8.3	0.0
Prescribed Drugs	12	83.3	0.0	0.0	41.7	41.7	16.7
Inpatient Mental Health	12	83.3	0.0	50.0	8.3	41.7	0.0
Drug/Alcohol Rehabilitation	12	100.0	0.0	8.3	8.3	50.0	33.3
Podiatry Services	12	75.0	33.3	16.7	8.3	16.7	25.0
Chiropractic Services	10	70.0	30.0	20.0	20.0	0.0	30.0
External Prosthetic Devices	12	83.3	33.3	41.7	8.3	0.0	16.7
Durable Medical Equipment	12	83.3	25.0	41.7	8.3	8.3	16.7
Eyeglasses	12	41.7	0.0	8.3	8.3	25.0	58.3
Hearing Aids	12	8.3	0.0	0.0	8.3	0.0	91.7
TMJ Treatment	12	41.7	0.0	16.7	0.0	25.0	58.3
Preventive Dental	11	9.1	0.0	0.0	9.1	0.0	90.9
Restorative Dental	12	0.0	0.0	0.0	0.0	0.0	100.0
Dental for Accidental Injury	12	93.3	50.0	16.7	16.7	0.0	16.7
In vitro Fertilization	11	9.1	0.0	0.0	9.1	0.0	90.9
Cosmetic Surgery	12	9.3	0.0	8.3	0.0	0.0	91.7

Notes:

1. Excludes plans whose best selling package is a Medicare or Medicaid package (n = 28).
2. Includes benefits covered through riders typically (i.e., at least 50% of the time) purchased with the package.

Source: GHAA's Annual HMO Industry Survey

Table 5 Percent of HMOs Offering Coverage for Selected Additional Benefits in Their Best Selling Benefit Package and Extent of Coverage Offered, by Federal Qualification Status and Plan Age, 1990[1,2,3]

	Federally Qualified Plans					Non-Federally Qualified Plans				
Type of Benefit, by Plan Age	**No Limits & No Copays**	**Limits Only**	**Copays Only**	**Limits & Copays**	**Not Covered**	**No Limits & No Copays**	**Limits Only**	**Copays Only**	**Limits & Copays**	**Not Covered**
ALL PLANS										
Allergy Treatment	38.7	1.4	50.0	7.1	2.8	38.9	0.9	46.0	8.8	5.3
Skilled Nursing	35.4	44.8	5.2	12.7	1.9	25.2	55.0	6.3	10.8	2.7
Hospice Care	38.6	28.6	5.2	9.5	18.1	40.2	32.1	5.4	7.1	15.2
Prescribed Drugs	1.4	5.0	51.4	37.8	4.5	3.5	0.9	61.9	29.2	4.4
Inpatient Mental Health	0.5	53.2	0.5	40.9	5.0	1.8	52.6	1.8	37.7	6.1
Drug/Alcohol Rehabilitation	3.2	23.4	5.4	45.5	22.5	2.7	30.4	0.9	43.8	22.3
Podiatry Services	24.6	7.1	32.7	10.9	24.6	28.4	11.0	27.5	13.8	19.3
Chiropractic Services	20.8	13.2	3.8	9.4	52.8	18.3	6.4	13.8	18.3	43.1
External Prosthetic Devices	26.8	20.7	13.6	22.5	16.4	24.6	23.7	17.5	18.4	15.8
Durable Medical Equipment	24.4	21.1	13.6	24.4	16.4	25.4	21.1	17.5	19.3	16.7
Eyeglasses	0.5	5.2	2.8	16.0	75.5	0.0	7.0	1.8	13.2	78.1
Hearing Aids	1.9	7.0	1.4	10.3	79.3	6.2	3.5	0.9	1.8	87.6
TMJ Treatment	6.6	15.1	10.8	13.2	54.2	6.4	15.5	10.0	13.6	54.5
Preventive Dental	2.3	4.7	6.1	4.7	82.2	5.4	1.8	0.9	3.6	88.3
Restorative Dental	1.9	1.4	7.5	0.5	88.7	2.7	3.6	0.0	4.5	89.3
Dental for Accidental Injury	34.3	12.2	22.1	14.6	16.9	36.6	12.5	17.0	18.8	15.2
In vitro Fertilization	3.8	1.4	4.7	8.5	81.5	1.8	2.7	4.5	1.8	89.2
Cosmetic Surgery	0.9	4.7	0.5	4.2	89.6	1.8	4.4	0.0	0.9	93.0
PLANS > 3 YEARS										
Allergy Treatment	38.9	1.0	50.0	7.2	2.9	39.0	1.0	47.6	8.6	3.8
Skilled Nursing	35.1	44.7	5.3	13.0	1.9	24.3	56.3	6.8	9.7	2.9
Hospice Care	38.8	27.7	5.3	9.7	18.4	37.5	33.7	5.8	6.7	16.3
Prescribed Drugs	1.4	5.0	51.8	37.2	4.6	3.8	1.0	62.9	29.5	2.9
Inpatient Mental Health	0.5	52.8	0.5	41.2	5.1	1.9	53.8	0.9	36.8	6.6
Drug/Alcohol Rehabilitation	3.2	23.9	5.5	45.4	22.0	2.9	31.7	0.0	43.3	22.1
Podiatry Services	24.2	7.2	33.3	11.1	24.2	28.7	9.9	28.7	12.9	19.8
Chiropractic Services	20.7	3.8	12.5	9.6	53.4	17.5	4.9	14.6	19.4	43.7
External Prosthetic Devices	25.8	21.1	13.9	23.0	16.3	25.5	20.8	17.9	19.8	16.0
Durable Medical Equipment	23.4	21.5	13.9	24.9	16.3	27.4	17.9	17.9	19.8	17.0
Eyeglasses	0.5	5.3	2.4	16.3	75.5	0.0	6.6	1.9	11.3	80.2
Hearing Aids	1.9	7.2	1.0	10.5	79.4	6.7	3.8	1.0	1.9	86.7
TMJ Treatment	6.7	14.9	11.1	13.5	53.9	6.9	15.7	10.8	11.8	54.9
Preventive Dental	2.4	4.8	5.7	4.8	82.3	5.8	1.9	1.0	3.8	87.5
Restorative Dental	1.9	1.4	7.7	0.5	88.5	2.9	3.8	0.0	4.8	88.5
Dental for Accidental Injury	33.5	12.4	22.5	14.8	16.7	36.5	11.5	16.3	20.2	15.4
In vitro Fertilization	3.9	1.4	4.8	8.7	81.2	1.9	2.9	3.8	1.9	89.4
Cosmetic Surgery	1.0	4.8	0.5	4.3	89.4	1.9	3.8	0.0	0.9	93.4
PLANS ≤ 3 YEARS										
Allergy Treatment	25.0	25.0	50.0	0.0	0.0	37.5	0.0	25.0	12.5	25.0
Skilled Nursing	50.0	50.0	0.0	0.0	0.0	37.5	37.5	0.0	25.0	0.0
Hospice Care	25.0	75.0	0.0	0.0	0.0	75.0	12.5	0.0	12.5	0.0
Prescribed Drugs	0.0	0.0	25.0	75.0	0.0	0.0	0.0	50.0	25.0	25.0
Inpatient Mental Health	0.0	75.0	0.0	25.0	0.0	0.0	37.5	12.5	50.0	0.0
Drug/Alcohol Rehabilitation	0.0	0.0	0.0	50.0	50.0	0.0	12.5	12.5	0.0	25.0
Podiatry Services	50.0	0.0	0.0	0.0	50.0	25.0	25.0	12.5	25.0	12.5
Chiropractic Services	25.0	0.0	50.0	0.0	25.0	33.3	33.3	0.0	0.0	33.3
External Prosthetic Devices	75.0	0.0	0.0	0.0	25.0	12.5	62.5	12.5	0.0	12.5
Durable Medical Equipment	75.0	0.0	0.0	0.0	25.0	0.0	62.5	25.0	12.5	12.5
Eyeglasses	0.0	0.0	25.0	0.0	75.0	0.0	12.5	0.0	37.5	50.0
Hearing Aids	0.0	0.0	25.0	0.0	75.0	0.0	0.0	0.0	0.0	100.0
TMJ Treatment	0.0	25.0	0.0	0.0	75.0	0.0	12.5	0.0	37.5	50.0
Preventive Dental	0.0	0.0	25.0	0.0	75.0	0.0	0.0	0.0	0.0	100.0
Restorative Dental	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
Dental for Accidental Injury	75.0	0.0	0.0	0.0	25.0	37.5	25.0	25.0	0.0	12.5
In vitro Fertilization	0.0	0.0	0.0	0.0	100.0	0.0	0.0	14.3	0.0	85.7
Cosmetic Surgery	0.0	0.0	0.0	0.0	100.0	0.0	12.5	0.0	0.0	87.5

Notes:

1. Excludes plans whose best selling package is a Medicare or Medicaid package (n = 28).
2. Includes benefits covered through riders typically (i.e., at least 50% of the time) purchased with the package.
3. See Table 4 for the number of plans responding for each type of benefit.

Source: GHAA's Annual HMO Industry Survey

Table 6 Extent of Cost Sharing in Best Selling Package for Primary Care Visits and Hospitalization by Plan Age and Selected Plan Characteristics, 1990

	Primary Care Visits				Hospitalization					
Selected Characteristics, by Plan Age	**% Covering**	**% Cost Sharing[1,2]**	**% Copay**	**Mean Co-payment ($)**	**% Covering**	**% Cost Sharing[1,3]**	**% Copay**	**Mean Co-payment ($)**	**% Coins.**	**Mean Coins.**
ALL PLANS (n = 336)	100.0%	72.0%	71.7%	$5.96	100.0%	22.3%	16.4%	$113.20	6.5%	18.8%
MODEL										
Staff	100.0	47.4	47.4	4.50	100.0	13.2	5.3	*	10.5	20.0
Group	100.0	52.8	52.8	5.61	100.0	11.3	11.3	108.00	1.9	*
Network	100.0	59.1	59.1	4.73	100.0	13.6	9.1	75.00	2.3	*
IPA	100.0	84.6	84.1	6.37	100.0	28.9	21.4	123.33	8.0	17.7
REGION										
New England	100.0	80.8	80.8	4.62	100.0	3.8	3.8	*	–	–
Middle Atlantic	100.0	78.6	78.6	5.12	100.0	9.5	9.5	56.25	2.4	*
South Atlantic	100.0	46.6	46.6	6.48	100.0	13.6	8.7	93.13	4.9	20.0
Midwest	100.0	76.9	76.9	6.71	100.0	28.8	26.9	121.67	5.8	*
South Central	100.0	95.6	95.6	6.83	100.0	35.6	26.7	145.45	8.9	22.5
Mountain	100.0	93.1	89.7	5.92	100.0	48.3	27.6	94.38	17.2	16.0
Pacific	100.0	76.9	76.9	4.87	100.0	28.2	17.9	125.00	10.3	17.5
SIZE										
0–19,999	100.0	75.7	75.7	6.34	100.0	28.8	20.7	110.45	8.1	20.0
20,000–49,999	100.0	78.4	77.3	6.34	100.0	24.7	17.5	123.44	7.2	17.9
50,000–99,999	100.0	61.8	61.8	5.82	100.0	23.6	20.0	111.25	5.5	15.0
100,000 +	100.0	65.8	65.8	4.83	100.0	8.2	5.5	91.25	4.1	20.0
PLAN AGE										
2-3	100.0	75.0	75.0	7.44	100.0	8.3	8.3	*	8.3	*
4–7	100.0	83.7	83.7	6.23	100.0	27.9	21.5	124.26	7.0	17.7
8–15	100.0	68.3	67.3	5.43	100.0	18.8	12.9	96.25	6.9	18.6
16 +	100.0	39.2	39.2	5.21	100.0	13.7	7.8	*	3.9	*
TAX STATUS										
Nonprofit	100.0	56.3	55.4	4.98	100.0	10.7	6.3	86.43	3.6	15.0
For-profit	100.0	79.9	79.9	6.31	100.0	28.1	21.4	117.56	8.0	19.7
QUALIFICATION STATUS										
Federally Qualified	100.0	74.3	74.3	5.99	100.0	21.6	17.6	113.71	5.4	20.5
Non-qualified	100.0	67.5	66.7	5.89	100.0	23.7	14.0	112.00	8.8	17.0
OWNER										
Blue Cross/Blue Shield	100.0	71.2	71.2	5.62	100.0	34.6	21.2	90.91	15.4	18.1
Commercial Insurer	100.0	92.2	92.2	6.53	100.0	33.3	30.0	135.87	6.7	20.0
National HMO Company	100.0	52.4	52.4	4.41	100.0	11.9	9.5	78.75	4.8	*
Independent	100.0	60.0	58.8	5.24	100.0	10.6	3.5	*	3.5	*
Provider-sponsored	100.0	73.1	73.1	6.73	100.0	19.4	14.9	112.78	4.5	*
MULTISTATE ORGANIZATION										
Yes	100.0	82.2	82.2	6.06	100.0	25.3	21.9	126.43	6.2	18.8
No	100.0	64.2	63.7	5.87	100.0	20.0	12.1	96.36	6.8	18.8

Table 6 (continued) Extent of Cost Sharing in Best Selling Package for Primary Care Visits and Hospitalization by Plan Age and Selected Plan Characteristics, 1990

	Primary Care Visits				Hospitalization					
Selected Characteristics, by Plan Age	**% Covering**	**% Cost Sharing[1,2]**	**% Copay**	**Mean Co-payment ($)**	**% Covering**	**% Cost Sharing[1,3]**	**% Copay**	**Mean Co-payment ($)**	**% Coins.**	**Mean Coins.**
PLANS > 3 YEARS (n = 324)	100.0%	71.9%	71.6%	$5.90	100.0%	22.8%	16.7%	$115.00	6.5%	18.3%
MODEL										
Staff	100.0	45.9	45.9	4.47	100.0	13.5	5.4	*	10.8	20.0
Group	100.0	52.8	52.8	5.61	100.0	11.3	11.3	108.00	1.9	*
Network	100.0	61.0	61.0	4.52	100.0	14.6	9.8	75.00	2.4	*
IPA	100.0	84.5	83.9	6.33	100.0	29.5	21.8	125.92	7.8	16.8
REGION										
New England	100.0	79.2	79.2	4.05	100.0	4.2	4.2	*	–	–
Middle Atlantic	100.0	77.5	77.5	4.81	100.0	7.5	7.5	*	–	–
South Atlantic	100.0	44.9	44.9	6.57	100.0	14.3	9.2	93.13	5.1	20.0
Midwest	100.0	76.5	76.5	6.76	100.0	29.4	27.5	121.67	5.9	*
South Central	100.0	97.7	97.7	6.83	100.0	36.4	27.3	145.45	9.1	22.5
Mountain	100.0	93.1	89.7	5.92	100.0	48.3	27.6	94.38	17.2	16.0
Pacific	100.0	78.9	78.9	4.87	100.0	28.9	18.4	125.00	10.5	17.5
SIZE										
0–19,999	100.0	75.5	75.5	6.13	100.0	30.4	21.6	114.52	7.8	18.8
20,000–49,999	100.0	78.1	77.1	6.36	100.0	25.0	17.7	123.44	7.3	17.9
50,000–99,999	100.0	62.3	62.3	5.94	100.0	24.5	20.8	111.25	5.7	*
100,000+	100.0	65.8	65.8	4.83	100.0	8.2	5.5	91.25	4.1	*
PLAN AGE										
4–7	100.0	83.7	83.7	6.23	100.0	27.9	21.5	124.26	7.0	17.7
8–15	100.0	68.3	67.3	5.43	100.0	18.8	12.9	96.25	6.9	18.6
16+	100.0	39.2	39.2	5.21	100.0	13.7	7.8	*	3.9	*
TAX STATUS										
Nonprofit	100.0	56.3	55.4	4.98	100.0	10.7	6.3	86.43	3.6	15.0
For-profit	100.0	80.2	80.2	6.25	100.0	29.2	22.2	119.76	8.0	19.1
QUALIFICATION STATUS										
Federally Qualified	100.0	74.3	74.3	5.97	100.0	22.0	17.9	113.71	5.5	20.5
Non-qualified	100.0	67.0	66.0	5.75	100.0	24.5	14.2	118.21	8.5	15.6
OWNER										
Blue Cross/Blue Shield	100.0	70.6	70.6	5.72	100.0	35.3	21.6	90.91	15.7	18.1
Commercial Insurer	100.0	91.8	91.8	6.37	100.0	34.1	30.6	140.91	5.9	17.5
National HMO Company	100.0	52.4	52.4	4.41	100.0	11.9	9.5	78.75	4.8	*
Independent	100.0	61.0	59.8	5.24	100.0	11.0	3.7	*	3.7	*
Provider-sponsored	100.0	73.4	73.4	6.70	100.0	20.3	15.6	112.78	4.7	*
MULTISTATE ORGANIZATION										
Yes	100.0	82.1	82.1	5.93	100.0	25.7	22.1	130.19	5.7	17.1
No	100.0	64.1	63.6	5.88	100.0	20.7	12.5	96.36	7.1	18.8
PLANS ≤ 3 YEARS (n = 12)	100.0	75.0	75.0	7.44	100.0	8.3	8.3	*	8.3	*

Notes:

1. Refers to any use of a copayment, coinsurance, or deductible for the specified benefits.
2. For primary care visits, 1.5% of all plans applied coinsurance requirements, and 1.2% of all plans applied a deductible.
3. For hospitalization, 3.3% of all plans applied deductible requirements.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 7 Copayments, Deductibles, and Coinsurance Required by HMOs on Selected Benefits Included in the Best Selling Benefit Package, by Plan Age, 1990

		Covered Service[1]								
		Copayment			Deductible			Coinsurance		
Type of Benefit, By Plan Age	Any Coverage	% Requiring	Mean ($)	Range	% Requiring	Mean ($)	Range	% Requiring	Mean (%)	Range
ALL PLANS										
Primary Care Visits	100.0	71.7	5.96	1–25	1.2	152.00	8–300	1.5	22.0	10–30
Hospitalization	100.0	16.4	113.20	5–250	3.3	162.50	100–300	6.5	18.8	10–30
Pharmacy	95.5	87.9	4.07	0.75–10	9.0	66.10	7–300	8.1	27.7	10–50
Outpatient Mental Health	99.1	69.3	16.02	2–40	0.6	300.00	**	20.8	39.9	20–50
Inpatient Mental Health	94.6	21.2	71.15	5–200	2.2	133.33	100–300	22.2	27.4	10–50
Drug/Alcohol Detox	98.8	26.9	46.79	2–200	1.5	100.00	**	15.4	29.0	10–50
Drug/Alcohol Rehab	77.5	45.0	34.86	2–250	1.2	100.00	**	21.2	31.4	10–50
PLANS > 3 YEARS										
Primary Care Visits	100.0	71.6	5.90	1–25	1.2	152.00	8–300	1.2	20.0	10–30
Hospitalization	100.0	16.7	115.00	5–250	3.1	162.50	100–300	6.5	18.3	10–30
Pharmacy	96.0	87.5	4.06	0.75–10	9.3	66.10	7–300	8.4	27.7	10–50
Outpatient Mental Health	99.4	69.5	15.93	2–40	0.6	300.00	**	20.5	39.8	20–50
Inpatient Mental Health	94.4	21.1	73.15	5–200	2.3	133.33	100–300	22.4	27.2	10–50
Drug/Alcohol Detox	98.8	27.0	47.88	2–200	1.6	100.00	**	15.7	28.6	10–50
Drug/Alcohol Rehab	78.0	44.8	34.99	2–250	1.2	100.00	**	21.0	31.3	10–50
PLANS ≤ 3 YEARS										
Primary Care Visits	100.0	75.0	7.44	2–10	0.0	–	–	8.3	*	*
Hospitalization	100.0	8.3	25.00	**	8.3	*	*	8.3	*	*
Pharmacy	100.0	100.0	4.44	3–5	0.0	–	–	0.0	–	–
Outpatient Mental Health	91.7	63.6	18.57	5–25	0.0	–	–	36.4	40.0	30–50
Inpatient Mental Health	100.0	25.0	30.00	10–50	0.0	–	–	16.7	35.0	20–50
Drug/Alcohol Detox	100.0	25.0	16.67	10–25	0.0	–	–	8.3	50.0	**
Drug/Alcohol Rehab	66.7	50.0	31.25	10–90	0.0	–	–	25.0	35.0	20–50

Notes:

1. Percentages for plans requiring financial payments are based only on those plans covering the benefit.

* Data are not shown where cell size is less than 4 plans.

**Range not applicable—mean is based on only one plan or all plans reported the same value.

Source: GHAA's Annual HMO Industry Survey

Table 8 Types of Limits Required by HMOs on Selected Benefits Included in the Best Selling Benefit Package, by Plan Age, 1990

Type of Benefit, By Plan Age	Any Coverage	Covered Service[1]									
		Day Limit[2]			Visit Limit[2]			Dollar Limit[2]			Other Limit[3]
		% Using	Mean	Range	% Using	Mean	Range	% Using	Mean[4]	Range	% Using
ALL PLANS											
Primary Care Visits	100.0	*	*	*	0.3	20.0	**	*	*	*	2.4
Hospitalization	100.0	1.8	22.0	5–31	*	*	*	*	*	*	4.2
Pharmacy	95.5	*	*	*	*	*	*	8.4	1965.22	300–250,000	30.0
Outpatient Mental Health	99.1	*	*	*	87.9	21.8	3–60	15.2	1104.58	20–2500	15.4
Inpatient Mental Health	94.6	93.3	32.8	5–365	*	*	*	*	*	*	19.3
Drug/Alcohol Detox	98.8	40.7	22.3	1–73	14.0	27.0	2–60	*	*	*	22.3
Drug/Alcohol Rehab	77.5	62.5	35.0	10–90	31.7	30.5	1–120	*	*	*	35.1
PLANS > 3 YEARS											
Primary Care Visits	100.0	*	*	*	0.3	20.0	**	*	*	*	2.2
Hospitalization	100.0	1.9	22.0	5–31	*	*	*	*	*	*	4.3
Pharmacy	96.0	*	*	*	*	*	*	8.7	1965.22	300–250,000	30.3
Outpatient Mental Health	99.4	*	*	*	88.4	21.9	3–60	15.0	1065.65	20–2500	15.6
Inpatient Mental Health	94.4	93.7	32.8	5–365	*	*	*	*	*	*	19.4
Drug/Alcohol Detox	98.8	40.5	22.1	1–73	14.5	27.0	2–60	*	*	*	22.7
Drug/Alcohol Rehab	78.0	61.8	34.6	14–90	32.7	30.5	1–120	*	*	*	35.9
PLANS ≤ 3 YEARS											
Primary Care Visits	100.0	*	*	*	0.0	—	—	*	*	*	8.3
Hospitalization	100.0	0.0	—	—	*	*	*	*	*	*	0.0
Pharmacy	100.0	*	*	*	*	*	*	0.0	—	—	20.0
Outpatient Mental Health	91.7	*	*	*	72.7	21.3	20–30	18.2	2000.00	**	9.1
Inpatient Mental Health	100.0	83.3	32.2	7–60	*	*	*	*	*	*	16.7
Drug/Alcohol Detox	100.0	45.5	27.4	7–45	0.0	—	—	*	*	*	9.1
Drug/Alcohol Rehab	66.7	87.5	44.3	10–90	0.0	—	—	*	*	*	12.5

Notes:

1. Percent of plans using limits is based only on those plans covering the benefit.
2. Limit measures varied for each benefit type.
3. Refers to whether or not any other limit (other than that cited in Note 2) was indicated by the plan.
4. For pharmacy, excludes 3 plans reporting a $100,000 limit and one plan reporting a $250,000 limit. Including these values would yield a mean of $22,044.44 for all plans and plans > 3 years old.

*Not applicable (see Note 2).

**Range not applicable – mean is based on only one plan or all plans reported the same value.

Source: GHAA's Annual HMO Industry Survey

Table 9 Percent of HMOs Offering Coverage of Organ Transplants by Type of Coverage and Plan Age, 1990

		Type of Coverage[1]				
Organ	Number Responding	Any Coverage	Basic Benefits	Case-by-Case	Rider	Not Covered
ALL PLANS						
Kidney	349	97.4	84.5	12.6	0.3	2.6
Liver (children with biliary atresia only)	347	95.7	77.5	17.3	0.9	4.3
Liver (all ages)	346	64.2	36.1	24.3	3.8	35.8
Heart	347	76.1	48.1	24.5	3.5	23.9
Heart-Lung	343	53.1	28.3	21.6	3.2	46.9
Pancreas	343	38.5	18.4	18.1	2.0	61.5
Cornea	347	95.4	81.3	13.8	0.3	4.6
Bone Marrow	347	93.1	61.7	30.3	1.1	6.9
PLANS > 3 YEARS						
Kidney	335	97.9	85.4	12.2	0.3	2.1
Liver (children with biliary atresia only)	333	96.1	78.4	12.2	0.9	3.9
Liver(all ages)	332	64.2	36.1	24.4	3.6	35.8
Heart	333	76.0	48.3	24.3	3.3	24.0
Heart-Lung	329	52.6	28.0	21.6	3.0	47.4
Pancreas	329	38.3	18.2	18.2	1.8	61.7
Cornea	333	96.1	82.0	13.8	0.3	3.9
Bone Marrow	333	94.0	60.4	30.6	0.9	6.0
PLANS ≤ 3 YEARS						
Kidney	14	85.7	64.3	21.4	0.0	14.3
Liver (children with biliary atresia only)	14	85.7	57.1	28.6	0.0	14.3
Liver (all ages)	14	64.3	35.7	21.4	7.1	35.7
Heart	14	78.6	42.9	28.6	7.1	21.4
Heart-Lung	14	64.3	35.7	21.4	7.1	35.7
Pancreas	14	42.9	21.4	14.3	7.1	57.1
Cornea	14	78.6	64.3	14.3	0.0	21.4
Bone Marrow	14	71.4	42.9	21.4	7.1	28.6

Notes:

1. Based on asking respondents to indicate whether the transplant procedure was covered in at least one basic benefit package as a rider, or on a case-by-case basis with multiple responses allowed. If included under both basic benefits and on either a case-by-case or rider basis, it was classified under the former. If included under both case-by-case and rider, it was classified under case-by-case. Only a small percentage of HMOs gave these responses.

Source: GHAA's Annual HMO Industry Survey

Table 10 Percent of HMOs Offering Coverage of Organ Transplants by Type of Coverage, Plan Age, and Federal Qualification Status, 1990[1]

	Federally Qualified Plans				Non-Federally Qualified Plans			
	Covered				Covered			
Organ	**Basic Benefits**	**Case-by-Case**	**Rider**	**Not Covered**	**Basic Benefits**	**Case-by Case**	**Rider**	**Not Covered**
ALL PLANS[2]								
Kidney	88.2	10.0	0.5	1.4	78.2	17.1	0.0	4.7
Liver (children with biliary atresia only)	84.5	13.7	0.9	0.9	65.6	23.4	0.8	10.2
Liver (all ages)	34.4	24.3	4.6	36.7	39.1	24.2	2.3	34.4
Heart	49.3	23.3	4.1	23.3	46.1	26.6	2.3	25.0
Heart-Lung	27.9	18.3	3.7	50.2	29.0	27.4	2.4	41.2
Pancreas	13.8	17.5	1.8	66.8	26.2	19.0	2.4	52.4
Cornea	86.7	11.0	0.5	1.8	71.8	18.8	0.0	9.4
Bone Marrow	67.8	28.1	0.5	3.6	51.2	33.8	2.4	12.6
PLANS > 3 YEARS								
Kidney	88.4	10.2	0.5	0.9	79.8	16.0	0.0	4.2
Liver (children with biliary atresia only)	84.6	14.0	0.9	0.5	67.0	22.0	0.8	10.2
Liver (all ages)	34.1	24.8	4.7	36.4	39.8	23.7	1.7	34.7
Heart	48.9	23.7	4.2	23.3	47.4	25.4	1.7	25.4
Heart-Lung	27.4	18.6	3.7	50.2	29.0	27.2	1.8	42.1
Pancreas	14.0	17.8	1.9	66.3	25.9	19.0	1.7	53.4
Cornea	87.0	11.9	0.5	1.4	72.8	18.6	0.0	8.5
Bone Marrow	67.6	28.7	0.5	3.2	53.0	34.2	1.7	11.1
PLANS ≤ 3 YEARS								
Kidney	75.0	0.0	0.0	25.0	60.0	30.0	0.0	10.0
Liver (children with biliary atresia only)	75.0	0.0	0.0	25.0	50.0	40.0	0.0	10.0
Liver (all ages)	50.0	0.0	0.0	50.0	30.0	30.0	10.0	30.0
Heart	75.0	0.0	0.0	25.0	30.0	40.0	10.0	20.0
Heart-Lung	50.0	0.0	0.0	50.0	30.0	30.0	10.0	30.0
Pancreas	0.0	0.0	0.0	100.0	30.0	20.0	10.0	40.0
Cornea	75.0	0.0	0.0	25.0	60.0	20.0	0.0	20.0
Bone Marrow	75.0	0.0	0.0	25.0	30.0	30.0	10.0	30.0

Notes:

1. Based on asking respondents to indicate whether the transplant procedure was covered in at least one basic benefit package as a rider, or on a case-by-case basis with multiple responses allowed. If included under both basic benefits and on either a case-by-case or rider basis, it was classified under the former. If included under both case-by-case and rider, it was classified under case-by-case. Only a small percentage of HMOs gave these responses.
2. See Table 9 for the number of plans responding to each item.

Source: GHAA's Annual HMO Industry Survey

Table 11 Mean Monthly Premium Rates and Employer Contributions for Single Contracts by Selected Characteristics and Plan Age, Based on Largest Single Account, 1990

	All Plans (n = 229)			Plans > 3 Years (n = 222)		
		Employer Contribution			Employer Contribution	
Selected Characteristics	Premium	Amount	Percent	Premium	Amount	Percent
TOTAL	$119.85	$104.09	87.2%	$119.74	$104.08	87.3%
MODEL						
Staff	121.91	109.99	91.4	121.91	109.99	91.4
Group	118.19	95.30	81.3	118.19	95.30	81.3
Network	119.25	111.37	93.4	119.51	111.04	92.9
IPA	120.04	103.94	86.8	119.80	104.10	87.1
REGION						
New England	131.46	113.47	87.5	129.62	110.58	86.8
Middle Atlantic	110.37	98.37	88.8	110.37	98.37	88.8
South Atlantic	124.18	100.11	81.2	123.89	100.91	82.0
Midwest	114.42	106.07	92.6	114.72	106.26	92.4
South Central	120.84	95.93	80.9	122.30	97.26	81.2
Mountain	116.01	99.11	86.0	116.01	99.11	86.0
Pacific	129.92	118.78	90.2	129.92	118.78	90.2
SIZE						
0–19,999	117.72	101.80	87.4	116.50	100.80	87.5
20,000–49,999	117.39	100.01	85.4	117.39	100.01	85.4
50,000–99,999	126.74	109.25	87.1	128.01	10.62	87.5
100,000+	120.80	108.55	89.5	120.80	108.55	89.5
PLAN AGE						
2–3	123.07	104.50	84.8	–	–	–
4–7	117.43	101.02	86.8	117.43	101.02	86.8
8–15	120.86	108.84	90.0	120.86	108.84	90.0
16+	124.66	103.78	83.3	124.66	103.78	83.3
TAX STATUS						
Nonprofit	121.83	109.41	89.[illegible]	121.67	109.11	89.8
For-profit	118.53	100.58	85.5	118.43	100.65	85.6
QUALIFICATION STATUS						
Federally Qualified	122.01	104.35	85.8	122.14	104.54	85.9
Non-qualified	115.41	103.55	90.2	114.55	103.06	90.4
OWNER						
Blue Cross/Blue Shield	124.55	108.41	86.8	124.55	108.41	86.8
Commercial Insurer	125.90	99.96	80.5	125.37	99.35	80.4
National HMO Company	115.96	99.38	85.4	115.96	99.38	85.4
Independent	118.28	105.98	90.4	118.10	106.25	90.7
Provider-sponsored	117.10	104.49	89.2	117.13	104.54	89.3
MULTISTATE ORGANIZATION						
Yes	119.05	99.37	83.8	119.21	99.59	84.0
No	120.35	107.09	89.4	120.09	106.96	89.5

Source: GHAA's Annual HMO Industry Survey

Table 12 Mean Monthly Premium Rates and Employer Contributions for Family Contracts by Selected Characteristics and Plan Age, Based on Largest Single Account, 1990

	All Plans (n = 226)			Plans > 3 (n = 219)		
		Employer Contribution			Employer Contribution	
Selected Characteristics	**Premium**	**Amount**	**Percent**	**Premium**	**Amount**	**Percent**
TOTAL	$316.16	$242.06	76.9%	$315.18	$241.54	77.0%
MODEL						
Staff	311.31	257.57	83.4	311.31	257.57	83.4
Group	308.15	213.79	70.0	308.15	213.79	70.0
Network	313.06	270.73	86.2	312.42	270.69	86.4
IPA	320.52	241.43	75.6	319.03	240.96	75.9
REGION						
New England	342.67	273.56	80.5	336.93	262.97	78.9
Middle Atlantic	301.48	256.80	84.6	301.48	256.80	84.6
South Atlantic	323.55	194.88	60.7	321.85	194.86	60.9
Midwest	304.48	265.13	86.6	304.13	265.66	86.9
South Central	332.46	199.52	60.0	335.38	204.73	61.4
Mountain	323.43	246.97	76.0	323.43	246.97	76.0
Pacific	299.79	259.49	86.8	299.79	259.49	86.8
SIZE						
0–19,999	307.76	232.85	76.8	302.46	227.18	76.4
20,000–49,999	317.01	235.30	73.9	317.01	235.30	73.9
50,000–99,999	332.44	257.89	77.8	334.56	263.27	79.3
100,000+	314.15	251.36	80.0	314.15	251.36	80.0
PLAN AGE						
2–3	346.97	258.22	72.6	–	–	–
4–7	311.99	231.41	74.6	311.99	231.41	74.6
8–15	318.22	257.97	81.1	318.22	257.97	81.1
16+	318.93	239.42	75.9	318.93	239.42	75.9
TAX STATUS						
Nonprofit	310.74	258.85	83.3	310.50	258.03	83.1
For-profit	319.82	230.74	72.6	318.44	230.04	72.8
QUALIFICATION STATUS						
Federally Qualified	321.79	240.52	74.9	321.39	240.89	75.2
Non-qualified	305.05	245.09	80.7	302.24	242.90	80.7
OWNER						
Blue Cross/Blue Shield	329.47	254.65	76.7	329.47	254.65	76.7
Commercial Insurer	338.48	228.77	68.3	335.20	224.66	67.9
National HMO Company	308.35	228.03	74.4	308.35	228.03	74.4
Independent	313.88	261.33	83.7	312.50	262.01	84.2
Provider-sponsored	299.96	225.25	75.1	299.04	224.73	75.4
MULTISTATE ORGANIZATION						
Yes	318.88	226.85	71.3	318.09	227.17	71.8
No	314.49	251.40	80.3	313.36	250.48	80.2

Source: GHAA's Annual HMO Industry Survey

Table 13 Distribution of HMOs According to Percentage of Employer Premium Contribution for Largest Single Account by Contract Type and Plan Age, 1990[1]

		Percentage Employer Contribution						
			Distribution of Plans (in percentages)					
Contract Type and Plan Age	**Number of Respondents**	**Mean**	**100%**	**99-90%**	**89-80%**	**79-70%**	**69-50%**	**49% or less**
ALL CONTRACT TYPES								
All Plans								
Single	229	87.2	37.6	14.4	14.4	24.0	7.9	1.7
Family	226	76.9	22.1	12.8	14.2	19.5	16.4	15.0
Couple	95	77.9	31.6	11.6	8.4	13.7	24.2	10.5
Parent & Child	74	77.0	27.0	10.8	12.2	10.8	31.1	8.1
Plans > 3 Years								
Single	222	87.3	37.8	14.0	14.4	24.3	7.7	1.8
Family	219	77.0	22.4	12.3	14.2	20.1	16.0	15.1
Couple	92	78.6	32.6	10.9	8.7	14.1	23.9	9.8
Parent & Child	71	77.1	28.2	9.9	11.3	11.3	31.0	8.5
Plans ≤ 3 Years								
Single	7	84.8	28.6	28.6	14.3	14.3	14.3	0.0
Family	7	72.6	14.3	28.6	14.3	28.6	0.0	14.3
Couple	3	58.2	0.0	33.3	0.0	0.0	33.3	33.3
Parent & Child	3	74.2	0.0	33.3	33.3	0.0	33.3	0.0
TYPE OF CONTRACT								
Private Employer								
Single	79	89.8	45.6	15.2	16.5	11.4	10.1	1.3
Family	77	81.6	28.6	18.2	19.5	11.7	10.4	11.7
Couple	43	83.6	39.5	9.3	14.0	16.3	14.0	7.0
Parent & Child	31	80.8	29.0	6.5	22.6	16.1	22.6	3.2
State/Local								
Single	97	90.7	48.5	17.5	17.5	8.2	5.2	3.1
Family	97	76.1	28.9	11.3	16.5	10.3	9.3	23.7
Couple	47	72.6	25.5	12.8	4.3	10.6	31.9	14.9
Parent & Child	39	73.6	25.6	12.8	5.1	5.1	38.5	12.8
Federal								
Single	47	76.1	2.1	6.4	4.3	80.9	6.4	0.0
Family	46	70.9	0.0	4.3	2.2	52.2	37.0	4.3
Couple	1	*	*	*	*	*	*	*
Parent & Child	1	*	*	*	*	*	*	*

Notes:

1. Plans were asked to exclude Medicare and Medicaid contracts. The ALL CONTRACT category also includes 7 "other" kinds of contracts which largely represent small employer associations, non-union employee groups or education related contracts.

* Data not shown where cell size is less than 3 plans.

Source: GHAA's Annual HMO Industry Survey

Table 14 Employer Contribution for Single Contracts in Largest Single Account by Method Used to Determine Employer Contribution, Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Method Used to Set Employer Contribution							
	Equal Dollar (n = 75)		Equal Percentage (n = 47)		Negotiated Amount (n = 25)		Other Method (n = 66)	
	$	Percent	$	Percent	$	Percent	$	Percent
ALL PLANS	$104.86	88.7%	$100.42	83.0%	$106.33	91.5%	$105.89	86.7%
Source of Contract[1]								
State/Local	108.61	90.8	104.35	85.3	105.04	91.1	110.05	94.3
Federal	96.60	78.1	85.88	74.4	87.59	81.5	93.69	74.3
Private Emp./Union	105.24	92.7	100.83	83.4	112.22	94.2	114.91	89.6
MODEL								
Staff	113.27	96.7	101.10	87.4	113.71	94.5	111.63	83.7
Group	98.72	82.2	93.98	76.9	*	*	93.37	82.4
Network	103.21	95.9	128.02	94.5	114.11	98.0	116.42	88.7
IPA	104.80	86.7	98.34	82.4	101.51	88.2	107.65	88.7
REGION								
New England	111.12	90.0	118.16	90.7	–	–	109.45	71.9
Middle Atlantic	100.44	90.2	90.82	87.0	108.46	96.6	101.86	87.5
South Atlantic	106.69	85.1	91.21	73.4	86.59	73.7	102.72	83.6
Midwest	102.75	91.7	101.29	88.7	114.09	96.7	107.83	94.2
South Central	89.00	80.7	94.27	70.3	–	–	109.63	92.6
Mountain	99.07	91.6	93.78	76.6	113.07	90.9	90.52	83.6
Pacific	142.40	100.0	*	*	*	*	113.00	80.9
SIZE								
0–19,999	98.66	88.3	101.35	81.4	99.14	89.6	109.92	89.2
20,000–49,999	104.39	85.9	97.75	80.2	93.59	86.2	103.47	90.6
50,000–99,999	110.91	93.4	101.60	85.0	136.60	97.4	102.43	79.0
100,000+	113.41	92.4	100.54	86.0	*	*	105.99	85.8
PLAN AGE								
2–3	76.79	86.7	116.88	81.7	–	–	*	*
4–7	97.82	86.0	98.30	82.8	102.02	91.7	105.23	87.5
8–15	111.80	91.2	96.28	83.4	112.66	95.3	117.91	93.2
16+	119.19	92.5	115.16	83.3	110.35	84.1	94.69	77.3
TAX STATUS								
Nonprofit	116.97	96.1	105.16	89.1	120.79	97.2	101.63	81.9
For-profit	98.05	84.5	96.59	78.1	96.69	87.6	108.49	89.7
QUALIFICATION STATUS								
Federally Qualified	107.62	87.6	96.24	81.0	113.93	92.7	102.86	84.9
Non-qualified	97.77	91.5	109.34	87.3	100.36	90.5	115.37	92.4
OWNER								
Blue Cross/Blue Shield	103.87	86.0	*	*	*	*	110.09	89.1
Commercial Insurer	95.54	79.2	98.27	75.4	*	*	108.65	87.9
National HMO Company	107.36	89.2	*	*	*	*	99.31	83.4
Independent	108.34	93.9	102.29	86.2	110.69	97.6	106.41	85.1
Provider-sponsored	107.17	91.3	103.84	85.8	92.99	87.0	110.89	91.3
MULTISTATE ORGANIZATION								
Yes	99.38	84.8	96.46	79.0	95.46	86.6	100.83	83.9
No	108.94	91.6	102.47	85.1	109.05	92.7	110.11	89.1

Table 14 (continued) Employer Contribution for Single Contracts in Largest Single Account by Method Used to Determine Employer Contribution, Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Method Used to Set Employer Contribution							
	Equal Dollar (n = 73)		Equal Percentage (n = 44)		Negotiated Amount (n = 25)		Other Method (n = 65)	
	$	Percent	$	Percent	$	Percent	$	Percent
PLANS > 3 YEARS	$105.63	88.7%	$ 99.30	83.1%	$106.33	91.5%	$105.89	86.6%
Source of Contract[1]								
State/Local	110.28	91.4	103.01	84.7	105.04	91.1	110.05	94.3
Federal	96.60	78.1	85.88	74.4	87.59	81.5	93.69	74.3
Private Emp./Union	105.64	92.4	99.88	85.1	112.22	94.2	115.43	89.5
MODEL								
Staff	113.27	96.7	101.10	87.4	113.71	94.5	111.63	83.7
Group	98.72	82.2	93.98	76.9	*	*	93.37	82.4
Network	104.13	95.4	*	*	114.11	98.0	116.42	88.7
IPA	105.93	87.1	97.73	83.1	101.51	88.2	107.70	88.6
REGION								
New England	111.12	90.0	111.52	88.8	–	–	109.45	71.9
Middle Atlantic	100.44	90.2	90.82	87.0	108.46	96.6	101.86	87.5
South Atlantic	106.69	85.1	95.10	77.2	86.59	73.7	102.72	83.6
Midwest	103.31	91.1	101.29	88.7	114.09	96.7	107.94	94.4
South Central	91.54	81.3	94.27	70.3	–	–	109.63	92.6
Mountain	99.07	91.6	93.78	76.6	113.07	90.9	90.52	83.6
Pacific	142.40	100.0	*	*	*	*	113.00	80.9
SIZE								
0–19,999	98.81	87.8	97.11	81.4	99.14	89.6	110.21	89.0
20,000–49,999	104.39	85.9	97.75	80.2	93.59	86.2	103.47	90.6
50,000–99,999	118.38	96.3	101.60	85.0	136.60	97.4	102.43	79.0
100,000 +	113.41	92.4	100.54	86.0	*	*	106.99	85.8
PLAN AGE								
4–7	97.82	86.0	98.30	82.8	102.02	91.7	105.23	87.5
8–15	111.80	91.2	96.28	83.4	112.66	95.3	117.91	93.2
16 +	119.19	92.5	115.16	83.3	110.35	84.1	94.69	77.3
TAX STATUS								
Nonprofit	116.97	96.1	103.59	88.5	120.79	97.2	101.63	81.9
For-profit	98.97	84.4	95.73	78.6	96.69	87.6	108.55	89.9
QUALIFICATION STATUS								
Federally Qualified	108.54	87.9	96.24	81.0	113.93	92.7	102.86	84.9
Non-qualified	97.91	91.1	107.46	88.7	100.36	90.5	115.98	92.5
OWNER								
Blue Cross/Blue Shield	103.87	86.0	*	*	*	*	110.09	[illegible]
Commercial Insurer	95.54	79.2	98.27	75.4	*	*	108.65	87.9
National HMO Company	107.36	89.2	*	*	*	*	99.31	83.4
Independent	108.93	93.6	102.30	87.6	110.69	97.6	106.41	[illegible]
Provider-sponsored	110.21	92.4	100.58	85.1	92.99	87.0	111.36	91.3
MULTISTATE ORGANIZATION								
Yes	100.69	85.2	96.46	79.0	95.46	86.6	100.83	83.9
No	109.27	91.4	100.92	85.4	109.05	92.7	110.22	89.0

Notes:

1. Source of contract included an "other" classification as in Table 16. However, population size was less than three for each of the methods.

* Data not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 15 Employer Contribution for Family Contracts in Largest Single Account by Method Used to Determine Employer Contribution, Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Method Used to Set Employer Contribution							
	Equal Dollar (n = 76)		Equal Percentage (n = 47)		Negotiated Amount (n = 23)		Other Method (n = 64)	
	$	Percent	$	Percent	$	Percent	$	Percent
ALL PLANS	$229.73	73.5%	$251.94	78.5%	$273.68	85.5%	$240.74	77.1%
Source of Contract[1]								
State/Local	222.11	71.2	254.89	80.1	233.36	80.7	238.49	77.5
Federal	229.09	68.7	230.86	72.1	227.88	75.0	227.56	71.7
Private Emp./Union	237.90	79.2	257.39	79.1	325.45	93.1	266.20	84.5
MODEL								
Staff	279.58	88.7	234.31	78.5	260.77	89.1	239.31	72.8
Group	207.70	64.4	224.43	72.0	*	*	213.71	73.0
Network	268.35	88.1	292.75	89.2	326.99	92.9	254.80	85.0
IPA	214.15	68.8	256.77	78.9	278.97	85.5	249.80	78.1
REGION								
New England	265.66	82.0	293.12	87.8	—	—	268.28	70.0
Middle Atlantic	274.47	88.5	211.62	76.1	*	*	259.99	84.5
South Atlantic	179.01	55.8	210.05	63.2	193.69	67.4	207.88	64.2
Midwest	250.84	82.3	267.85	88.5	299.05	90.6	272.22	91.5
South Central	173.19	55.4	235.58	65.5	—	—	214.28	63.8
Mountain	235.16	71.1	260.61	76.7	277.38	79.7	217.67	77.7
Pacific	272.71	92.3	*	*	*	*	233.10	76.5
SIZE								
0–19,999	222.98	75.2	240.53	74.8	242.83	84.0	234.12	76.8
20,000–49,999	230.97	72.5	278.86	80.1	272.27	81.7	228.69	75.1
50,000–99,999	278.23	84.8	235.82	76.7	318.06	86.4	252.82	73.5
100,000+	212.09	65.9	260.07	85.1	*	*	248.49	80.6
PLAN AGE								
2–3	*	*	293.75	81.7	—	—	*	*
4–7	213.44	70.3	249.51	78.5	266.90	85.6	237.66	75.8
8–15	249.72	77.4	242.53	78.4	274.89	87.6	273.01	84.8
16+	259.75	81.6	273.73	77.6	*	*	212.70	71.5
TAX STATUS								
Nonprofit	262.16	86.6	260.64	84.2	303.62	94.0	239.81	76.3
For-profit	211.86	66.3	244.92	74.0	250.66	79.0	241.34	77.6
QUALIFICATION STATUS								
Federally Qualified	234.98	72.5	235.42	74.7	294.95	85.8	232.70	74.8
Non-qualified	216.86	76.1	287.20	86.8	260.01	85.3	264.89	84.0
OWNER								
Blue Cross/Blue Shield	234.59	71.6	*	*	*	*	267.52	83.4
Commercial Insurer	217.75	65.4	242.13	67.6	*	*	230.97	79.1
National HMO Company	234.39	70.1	*	*	*	*	220.04	73.4
Independent	267.27	86.5	252.13	80.6	289.88	92.4	250.52	78.5
Provider-sponsored	181.64	65.4	266.72	85.5	215.54	76.4	241.40	73.2
MULTISTATE ORGANIZATION								
Yes	216.35	67.0	235.10	70.5	290.58	85.0	222.22	74.4
No	239.47	78.2	260.63	82.7	270.13	85.6	255.15	79.2

Table 15 (continued) Employer Contribution for Family Contracts in Largest Single Account by Method Used to Determine Employer Contribution, Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Method Used to Set Employer Contribution							
	Equal Dollar (n = 74)		Equal Percentage (n = 44)		Negotiated Amount (n = 23)		Other Method (n = 63)	
	$	Percent	$	Percent	$	Percent	$	Percent
PLANS > 3 YEARS	$232.31	74.3%	$249.09	78.3%	$273.68	85.5%	$239.97	76.9%
Source of Contract[1]								
State/Local	227.38	72.7	251.66	79.3	233.36	80.7	238.49	77.5
Federal	229.09	68.7	230.86	72.1	*	*	227.56	71.7
Private Emp./Union	238.97	79.6	254.77	80.1	325.45	93.1	264.74	84.1
MODEL								
Staff	279.58	88.7	234.31	78.5	260.77	89.1	239.31	72.8
Group	207.70	64.4	224.43	72.0	*	*	213.71	73.0
Network	274.84	90.4	279.55	85.7	*	*	254.80	85.0
IPA	217.85	69.9	255.51	79.3	278.97	85.5	248.64	77.7
REGION								
New England	265.66	82.0	278.95	85.0	–	–	268.28	70.0
Middle Atlantic	274.47	88.5	211.62	76.1	*	*	259.99	84.5
South Atlantic	179.01	55.8	212.42	65.4	193.69	67.4	207.88	64.2
Midwest	253.76	83.3	267.85	88.5	299.05	90.6	271.07	91.6
South Central	182.74	58.1	235.58	65.5	–	–	214.28	63.8
Mountain	235.16	71.1	260.61	76.7	277.38	79.7	217.67	77.7
Pacific	272.71	92.3	*	*	*	*	233.10	76.5
SIZE								
0–19,999	223.50	75.5	226.02	73.0	242.83	84.0	229.51	75.6
20,000–49,999	230.97	72.5	278.86	80.1	272.27	81.7	228.69	75.1
50,000–99,999	309.60	93.7	235.82	76.7	318.06	86.4	252.82	73.5
100,000+	212.09	65.9	260.07	85.1	*	*	248.49	80.6
PLAN AGE								
4–7	213.44	70.3	249.51	78.5	266.90	85.6	237.66	75.8
8–15	249.72	77.4	242.53	78.4	274.89	87.6	273.01	84.8
16+	259.75	81.6	273.73	77.6	*	*	212.70	71.5
TAX STATUS								
Nonprofit	262.16	86.6	257.05	83.4	303.62	94.0	239.81	76.3
For-profit	215.17	67.2	242.45	74.1	250.66	79.0	240.08	77.2
QUALIFICATION STATUS								
Federally Qualified	238.31	73.4	235.42	74.7	294.95	85.8	232.70	74.8
Non-qualified	217.19	76.5	285.56	88.1	260.01	85.3	263.25	83.6
OWNER								
Blue Cross/Blue Shield	234.59	71.6	*	*	*	*	267.52	83.4
Commercial Insurer	217.75	65.4	242.13	67.6	*	*	230.97	79.1
National HMO Company	234.39	70.1	*	*	*	*	220.04	73.4
Independent	269.87	87.4	250.63	81.3	289.88	92.4	250.52	78.5
Provider-sponsored	189.33	68.1	260.07	84.8	215.54	76.4	236.60	71.5
MULTISTATE ORGANIZATION								
Yes	221.44	68.4	235.10	70.5	290.58	85.0	222.22	74.4
No	240.15	78.5	257.08	82.8	270.13	85.6	254.17	78.8
PLANS ≤3 YEARS	*	*	*	*	*	*	*	*

Notes:

1. Source of contract included an "other" classification as in Table 16. However, population size was less than three for each of the methods.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 16 Mean Monthly Premium Rates in HMOs, 1989, 1990, and Yearly Changes, by Source of Contract and Plan Characteristics, for Largest Single Account, Single and Family Contracts

	ALL PLANS BY CONTRACT TYPE						PLANS > 3 YEARS BY CONTRACT TYPE[1]					
	Single (n = 269)			Family (n = 267)			Single (n = 264)			Family (n = 262)		
	Premiums			Premiums			Premiums			Premiums		
Source of Contract and Selected Characteristics	1989	1990	% Change	1989	1990	% Change	1989	1990	% Change	1989	1990	% Change
TOTAL	101.60	118.20	17.0	265.93	313.87	18.4	101.66	118.16	16.9	266.04	313.80	18.2
SOURCE OF CONTRACT												
State/Local	102.71	118.89	16.7	262.19	310.78	18.8	102.88	119.09	16.7	262.39	311.11	18.9
Federal	100.94	120.30	19.4	265.61	318.68	20.2	100.94	120.30	19.4	265.61	318.68	20.2
Private Emp./Union	101.66	117.39	16.3	271.41	316.26	17.0	101.67	117.06	15.9	271.58	315.67	16.6
Other	89.00	101.21	13.0	254.41	291.66	13.9	89.00	101.21	14.0	254.41	291.66	13.9
MODEL												
Staff	102.70	122.05	18.3	264.13	315.72	18.6	102.70	122.05	18.3	264.13	315.72	18.6
Group	99.95	115.69	17.4	256.46	305.47	19.5	99.95	115.69	17.4	256.46	305.47	19.5
Network	98.91	114.51	16.4	258.22	298.97	16.2	98.56	113.86	16.2	258.13	297.92	15.9
IPA	102.55	119.16	16.8	271.01	319.48	18.4	102.75	119.25	16.6	271.30	319.62	18.3
REGION												
New England	108.84	131.00	20.3	278.29	336.64	21.1	107.82	129.82	20.3	276.60	335.36	21.3
Middle Atlantic	94.60	108.15	17.3	246.13	296.80	21.5	95.15	108.03	16.4	247.61	296.43	20.3
South Atlantic	105.00	122.86	18.0	276.04	322.18	17.4	105.00	122.86	18.0	276.04	322.18	17.4
Midwest	97.32	110.96	14.1	261.38	299.75	14.8	97.29	110.89	14.0	261.23	299.48	14.8
South Central	104.43	124.27	19.0	286.08	342.44	20.1	105.16	125.41	19.7	287.22	344.71	20.5
Mountain	99.71	114.76	15.7	268.00	322.68	20.4	99.71	114.76	15.7	268.00	322.68	20.4
Pacific	108.98	127.35	18.0	247.84	293.65	18.4	108.98	127.35	17.9	247.84	293.65	18.4
SIZE IN 1990												
0–19,999	97.21	113.82	17.5	257.03	302.83	18.5	96.88	113.01	17.0	256.63	301.27	17.9
20,000–49,999	100.44	117.28	17.4	271.59	317.64	17.2	100.44	117.28	17.4	271.59	317.64	17.2
50,000–99,999	108.24	125.50	17.4	275.92	330.98	20.0	108.93	126.47	17.7	276.65	332.63	20.3
100,000+	103.87	119.58	15.6	262.92	310.58	18.4	103.87	119.58	15.6	262.92	310.58	18.4
PLAN AGE												
2–3	98.20	119.84	23.1	260.22	317.66	24.8	–	–	–	–	–	–
4–7	97.90	114.99	18.0	262.65	310.55	18.6	97.90	114.99	17.9	262.65	310.55	18.6
8–15	107.13	121.61	15.0	272.63	320.02	17.7	107.13	121.61	15.0	272.63	320.02	17.7
16+	102.68	121.39	17.9	263.56	311.67	18.1	102.68	121.39	17.9	263.56	311.56	18.1
TAX STATUS												
Nonprofit	101.80	119.23	17.3	260.28	305.92	17.6	101.71	119.06	17.2	260.28	305.66	17.5
For-profit	101.48	117.56	16.9	269.42	318.79	18.9	101.64	117.61	16.7	269.65	318.91	18.7
QUALIFICATION STATUS												
Federally Qualified	103.70	121.05	17.8	269.47	320.44	19.4	104.02	121.32	17.6	270.07	320.86	19.2
Non-qualified	97.05	112.03	15.5	258.47	300.06	16.2	96.44	111.16	15.3	257.34	298.58	16.1
OWNER												
Blue Cross/Blue Shield	102.73	119.51	16.5	270.34	317.11	17.4	102.73	119.51	16.5	270.34	317.11	17.4
Commercial Insurer	104.69	124.43	19.7	281.26	337.43	21.1	105.27	124.65	19.1	283.01	337.94	20.3
National HMO Company	102.59	116.13	16.3	253.97	308.33	21.7	102.59	116.13	16.3	253.97	308.33	21.7
Independent	99.88	116.33	16.4	262.84	307.26	17.0	99.72	116.05	16.3	262.87	306.91	16.9
Provider-sponsored	99.70	115.27	16.2	259.74	302.56	16.7	99.59	115.20	16.4	258.58	301.96	17.0
MULTISTATE ORGANIZATION												
Yes	103.11	119.89	17.8	269.69	322.20	20.2	103.67	120.36	17.5	270.78	323.01	20.0
No	100.66	117.14	16.6	263.64	308.81	17.2	100.42	116.80	16.5	263.15	308.21	17.2

Notes:

1. For plans ≤ 3 years, the average premium changes are shown under the all plans columns for plan age 2–3 years.

Source: GHAA's Annual HMO Industry Survey

Table 17 Mean Monthly Premium Rates in HMOs, 1989, 1990 and Yearly Changes, and Distribution of HMOs by Percent Change, by Type of Contract and Plan Age for Largest Single Account

					Decrease					Increase						
Contract Type, by Plan Age[1]	N	1989	1990	% Change 89-90	More than 10%	10.0–5.1%	5% or less	Any Decrease	No Change	Any Increase	5% or less	5.1–10.0%	10.1–15.0%	15.1–20.0%	20.1–25.0%	25.1% or more
ALL PLANS																
Single	269	101.60	118.20	17.0	1.1	0.4	1.8	3.3	1.5	95.2	4.4	11.9	25.7	22.3	13.4	17.5
Family	267	265.93	313.87	18.4	0.0	0.4	0.7	1.1	1.5	97.4	5.3	10.9	24.3	22.8	10.5	23.6
Couple	109	214.66	249.45	17.3	0.0	0.0	2.8	2.8	1.8	95.4	9.2	11.9	20.2	24.8	12.8	16.5
Parent w/1 child	85	196.42	226.54	16.0	1.2	1.2	1.2	3.6	2.4	94.1	7.1	9.4	21.2	23.5	15.3	17.6
PLANS > 3 YEARS																
Single	264	101.66	118.16	16.9	1.2	0.4	1.9	3.5	1.5	95.0	4.5	11.7	26.1	22.0	13.3	17.4
Family	262	266.03	313.80	18.2	0.0	0.4	0.8	1.2	1.5	97.3	5.3	10.7	24.4	22.9	10.7	23.3
Couple	107	215.25	250.28	17.4	0.0	0.0	– 2.8	2.8	1.9	95.3	8.4	12.1	20.6	24.3	13.1	16.8
Parent w/1 child	84	196.40	226.48	15.9	1.2	1.2	1.2	3.6	2.4	94.0	7.1	9.5	21.4	22.6	15.5	17.9
PLANS ≤ 3 YEARS																
Single	5	98.20	119.84	23.1	0.0	0.0	0.0	0.0	0.0	100.0	20.0	0.0	0.0	40.0	20.0	20.0
Family	5	260.22	317.66	24.8	0.0	0.0	0.0	0.0	0.0	100.0	20.0	0.0	20.0	20.0	0.0	40.0
Couple	2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Parent w/1 child	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Notes:

1. Plans vary in the rating structure they use, with some using only single rates. For all plans' 12 indicated a single rate was not applicable, 14 that family rates were not applicable, 181 that couple rates were not applicable, and 203 indicated that a parent and child rate was not applicable.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 18 Percent of HMOs Using Various Rating Methodologies in Private Employer Contracts, by Selected Plan Characteristics and Plan Age, 1990[1]

	All Plans (n = 348)[2]				Plans > 3 Years (n = 333)[2]			
Selected Characteristics	**Any Use of Std. Comm.**	**Any Use of CRC**	**Any Use of ACR**	**Any Use of Exp.[3]**	**Any Use Std. Comm.**	**Any Use of CRC**	**Any Use of ACR**	**Any Use of Exp.[3]**
TOTAL	54.6	51.1	31.9	31.0	55.3	50.5	31.8	30.6
MODEL								
Staff	71.4	59.5	38.1	28.6	72.5	60.0	40.0	27.5
Group	66.7	27.8	37.0	9.3	66.7	27.8	37.0	9.3
Network	51.1	46.8	19.1	27.7	53.5	48.8	18.6	25.6
IPA	48.8	56.6	32.2	38.0	49.0	55.1	31.6	38.3
REGION								
New England	70.4	44.4	29.6	7.4	70.8	45.8	29.2	8.3
Middle Atlantic	84.1	20.5	22.7	4.5	85.7	16.7	23.8	2.4
South Atlantic	46.4	55.4	32.1	35.7	46.3	53.7	33.3	35.2
Midwest	53.8	50.9	30.2	36.8	54.5	50.5	29.7	35.6
South Central	50.0	63.0	43.5	34.8	51.1	62.2	42.2	35.6
Mountain	37.0	63.0	33.3	44.4	37.0	63.0	33.3	44.4
Pacific	42.9	61.9	33.3	40.5	45.0	62.5	32.5	40.0
SIZE								
0–19,999	55.9	51.7	26.3	33.1	58.5	50.9	26.4	31.1
20,000–49,999	57.6	46.5	29.3	39.4	57.1	45.9	29.6	39.8
50,000–99,999	57.9	57.9	40.4	22.8	58.2	56.4	38.2	23.6
100,000+	45.9	51.4	37.8	23.0	45.9	51.4	37.8	23.0
PLAN AGE								
2–3	40.0	66.7	33.3	40.0	–	–	–	–
4–7	50.0	52.3	28.4	33.5	50.0	52.3	28.4	33.5
8–15	60.6	47.1	33.7	25.0	60.6	47.1	33.7	25.0
16+	62.3	50.9	39.6	32.1	62.3	50.9	39.6	32.1
TAX STATUS								
Nonprofit	60.5	37.0	35.3	24.4	60.2	37.3	35.6	24.6
For-profit	51.5	58.5	30.1	34.5	52.6	57.7	29.8	34.0
QUALIFICATION STATUS								
Federally Qualified	60.4	54.2	35.2	21.1	60.8	53.6	35.1	21.2
Non-qualified	43.8	45.5	25.6	49.6	44.1	44.1	25.2	49.5
OWNER								
Blue Cross/Blue Shield	51.0	49.0	31.4	41.2	50.0	48.0	30.0	42.0
Commercial Insurer	58.1	61.6	22.1	34.9	60.5	60.5	23.5	33.3
National HMO Company	45.5	47.7	52.3	15.9	45.5	47.7	52.3	15.9
Independent	59.6	41.5	27.7	27.7	61.4	40.9	28.4	26.1
Provider-sponsored	52.1	54.8	37.0	32.9	51.4	54.3	34.3	34.3
MULTISTATE ORGANIZATION								
Yes	57.3	53.8	35.0	24.5	59.1	52.6	35.8	23.4
No	52.7	49.3	29.8	35.6	52.6	49.0	29.1	35.7

Notes:

1. Analysis based only on plans responding to all four of the Yes/No items. Slightly different estimates are obtained when all plans completing each of the items are used. For plans greater than 3 years old, 54.8% of all responding plans used standard community rating, 50.4% community rating by class (CRC), 31.6% adjusted community rating (ACR) and 31.1% used experience rating.
2. For plans ≤ 3 years, 40.0% made some use of standard community rating, 66.7% used CRC, 33.3% used ACR and 40.0% used experience rating (n = 15).
3. Refers to any method of rating based on group experience other than ACR, which is a rating method defined by the federal HMO Act.

Source: GHAA's Annual HMO Industry Survey

Table 19 Percent of HMOs Using Various Patterns of Rating Methodologies in Private Employer Contracts, by Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Community Rating Only[2]				Other	
		Plan-Wide Only[3]				
	% Plans	% Plans	% Std. Only	% Some ACR[4]	% Some Exp.[5]	% Only Exp.
ALL PLANS (n = 348)	69.0	43.7	21.8	25.3	31.0	8.0
MODEL						
Staff	71.4	38.1	19.0	33.3	28.6	7.1
Group	90.7	57.4	40.7	33.3	9.3	1.9
Network	72.3	57.4	27.7	14.9	27.7	8.5
IPA	62.0	38.0	16.1	23.9	38.0	9.8
REGION						
New England	92.6	63.0	33.3	29.6	7.4	3.7
Middle Atlantic	95.5	72.7	61.4	22.7	4.5	2.3
South Atlantic	64.3	42.9	21.4	21.4	35.7	5.4
Midwest	63.2	39.6	16.0	23.6	36.8	9.4
South Central	65.2	30.4	15.2	34.8	34.8	4.3
Mountain	55.6	33.3	3.7	22.2	44.4	22.2
Pacific	59.5	33.3	7.1	26.2	40.5	11.9
SIZE						
0–19,999	66.9	45.8	22.0	21.2	33.1	11.9
20,000–49,999	60.6	41.4	24.2	19.2	39.4	10.1
50,000–99,999	77.2	42.1	17.5	35.1	22.8	5.3
100,000+	77.0	44.6	21.6	32.4	23.0	1.4
PLAN AGE						
2–3	60.0	26.7	6.7	33.3	40.0	20.0
4–7	66.5	44.9	21.6	21.6	33.5	8.0
8–15	75.0	46.2	26.9	28.8	25.0	5.8
16+	67.9	39.6	[illegible]	28.3	32.1	9.4
TAX STATUS						
Nonprofit	75.6	46.2	31.1	29.4	24.4	7.6
For-profit	65.5	42.4	17.0	23.1	34.5	8.3
QUALIFICATION STATUS						
Federally Qualified	78.9	49.8	24.2	29.1	21.1	3.5
Non-qualified	50.4	32.2	17.4	18.2	49.6	16.5
OWNER						
Blue Cross/Blue Shield	58.8	39.2	23.5	19.6	41.2	11.8
Commercial Insurer	65.1	45.3	18.6	19.8	34.9	8.1
National HMO Company	84.1	38.6	11.4	45.5	15.9	2.3
Independent	72.3	48.9	30.9	23.4	27.7	11.7
Provider-sponsored	67.1	41.1	19.2	26.0	32.9	4.1
MULTISTATE ORGANIZATION						
Yes	75.5	45.5	23.1	30.1	24.5	3.5
No	64.4	42.4	21.0	22.0	35.6	11.2

Table 19 Percent of HMOs Using Various Patterns of Rating Methodologies
(continued) in Private Employer Contracts, by Selected Plan Characteristics and Plan Age, 1990[1]

	Community Rating Only[2]				Other	
		Plan-Wide Only[3]				
Selected Characteristics, by Plan Age	**% Plans**	**% Plans**	**% Std. Only**	**% Some ACR[4]**	**% Some Exp.[5]**	**% Only Exp.**
PLANS > 3 YEARS (n = 333)	69.4	44.4	22.5	24.9	30.6	7.5
MODEL						
Staff	72.5	37.5	20.0	35.0	27.5	5.0
Group	90.7	57.4	40.7	33.3	9.3	1.9
Network	74.4	60.5	27.9	14.0	25.6	4.7
IPA	61.7	38.8	16.8	23.0	38.3	10.2
REGION						
New England	91.7	62.5	33.3	29.2	8.3	4.2
Middle Atlandtic	97.6	73.8	64.3	23.8	2.4	2.4
South Atlantic	64.8	42.6	22.2	22.2	35.2	5.6
Midwest	64.4	41.6	16.8	22.8	35.6	7.9
South Central	64.4	31.1	15.6	33.3	35.6	4.4
Mountain	55.6	33.3	3.7	22.2	44.4	22.2
Pacific	60.0	35.0	7.5	25.0	40.0	10.0
SIZE						
0–19,999	68.9	48.1	23.6	20.8	31.1	10.4
20,000–49,999	60.2	40.8	24.5	19.4	39.8	10.2
50,000–99,999	76.4	43.6	18.2	32.7	23.6	5.5
100,000 +	77.0	44.6	21.6	32.4	23.0	1.4
PLAN AGE						
4–7	66.5	44.9	21.6	21.6	33.5	8.0
8–15	75.0	46.2	26.9	28.8	25.0	5.8
16 +	67.9	39.6	17.0	28.3	32.1	9.4
TAX STATUS						
Nonprofit	75.4	45.8	30.5	29.7	24.6	7.6
For-profit	66.0	43.7	18.1	22.3	34.0	7.4
QUALIFICATION STATUS						
Federally Qualified	78.8	50.0	24.8	28.8	21.2	3.2
Non-qualified	50.5	33.3	18.0	17.1	49.5	16.2
OWNER						
Blue Cross/Blue Shield	58.0	40.0	24.0	18.0	42.0	12.0
Commercial Insurer	66.7	45.7	19.8	21.0	33.3	7.4
National HMO Company	84.1	38.6	11.4	45.5	15.9	2.3
Independent	73.9	50.0	31.8	23.9	26.1	10.2
Provider-sponsored	65.7	42.9	20.0	22.9	34.3	4.3
MULTISTATE ORGANIZATION						
Yes	76.6	46.0	24.1	30.7	23.4	2.9
No	64.3	43.4	21.4	20.9	35.7	10.7
PLANS ≤ 3 YEARS (n = 15)	60.0	26.7	6.7	33.3	40.0	20.0

Notes:

1. Based only on plans completing all 4 of the Yes/No items. Although the question was specific to private employer groups it is possible that some plans responded based on all group contracts or all business.
2. Includes plans which use only standard community rating, community rating by class or adjusted community rating (ACR), which are rating methods defined by the federal HMO Act.
3. Includes plans using only standard community rating or community rating by class.
4. No plans used adjusted community rating exclusively.
5. Refers to plans which make some use of an experience rating technique other than adjusted community rating. For all plans using experience rating, 27.1% use retrospective adjustment. For plans > 3 years using experience rating, 26.4% use retrospective adjustment.

Source: GHAA's Annual HMO Industry Survey.

Table 20 Mean Percentage of Total Enrollees Covered Under Various Rating Systems in HMOs by Selected Plan Characteristics and Plan Age, 1990

	All Plans (n = 347)				Plans > 3 Years (n = 332)[1]			
Selected Characteristics, by Plan Age	Std. Comm. Rating	CRC	ACR	Exper. Rating	Std. Comm. Rating	CRC	ACR	Exper. Rating
TOTAL	33.9	31.3	17.1	17.6	34.4	30.9	17.6	17.1
MODEL								
Staff	39.1	27.7	20.8	12.4	40.7	27.0	21.8	10.6
Group	47.9	20.7	25.4	6.0	47.9	20.7	25.4	6.0
Network	37.1	32.9	12.4	17.6	38.2	34.2	12.9	14.7
IPA	28.4	34.5	15.3	21.7	28.5	33.8	15.6	22.1
REGION								
New England	51.9	29.8	14.5	3.7	50.2	29.4	16.3	4.2
Middle Atlantic	67.6	14.5	12.2	5.7	70.5	12.5	12.8	4.2
South Atlantic	29.4	35.3	20.3	15.0	30.2	33.2	21.1	15.5
Midwest	30.9	29.0	17.5	22.6	31.2	29.3	18.3	21.3
South Central	25.0	41.9	21.0	12.1	25.6	42.1	19.9	12.4
Mountain	19.6	30.5	15.9	34.1	19.6	30.5	15.9	34.1
Pacific	19.0	40.2	15.7	25.1	20.0	40.3	15.8	23.9
SIZE								
0–19,999	33.1	36.5	10.3	20.1	34.5	36.0	11.2	18.4
20,000–49,999	35.2	25.5	16.8	22.5	35.4	24.9	17.0	22.7
50,000–99,999	36.3	32.0	18.1	13.6	35.9	32.5	17.4	14.1
100,000+	31.7	30.4	27.6	10.2	31.7	30.4	27.6	10.2
PLAN AGE								
2–3	23.3	40.8	7.3	28.6	–	–	–	–
4–7	30.2	34.6	15.5	19.7	30.2	34.6	15.5	19.7
8–15	42.1	27.4	18.0	12.6	42.1	27.4	18.0	12.6
16+	33.2	25.6	23.7	17.5	33.2	25.6	23.7	17.5
TAX STATUS								
Nonprofit	43.8	19.2	22.5	14.5	43.3	19.4	22.7	14.6
For-profit	28.8	37.6	14.3	19.3	29.5	37.2	14.7	18.6
QUALIFICATION STATUS								
Federally Qualified	37.0	34.3	18.5	10.2	37.3	34.1	18.6	10.0
Non-qualified	28.2	25.8	14.4	31.5	28.6	24.6	15.4	31.4
OWNER								
Blue Cross/Blue Shield	35.2	26.2	12.2	26.4	34.0	26.7	12.4	26.9
Commercial Insurer	27.0	45.7	8.3	19.0	28.6	45.2	8.9	17.4
National HMO Company	23.5	32.2	37.3	6.9	23.5	32.2	37.3	6.9
Independent	42.4	22.5	16.9	18.2	43.9	21.1	17.8	17.1
Provider-sponsored	36.2	29.2	18.7	16.0	35.9	29.2	18.3	16.7
MULTISTATE ORGANIZATION								
Yes	32.2	36.7	19.6	11.4	33.6	36.2	20.0	10.2
No	35.1	27.6	15.4	22.0	35.0	27.2	15.9	21.9

Notes:

1. For plans ≤ 3 years an average of 23.3% of enrollment was under standard community rating, 40.8% under CRC, 7.3% under ACR and 28.6% under experience rating (n = 15).

Source: GHAA's Annual HMO Industry Survey

Table 21

Average Contract Size and Ratio of Multi-enrollee to Single Contracts by Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Average Contract Size				Multi-enrollee Contract Size				Ratio of Multi-enrollee to Single Contracts			
	Mean	25th Percentile	Median	75th Percentile	Mean	25th Percentile	Median	75th Percentile	Mean	25th Percentile	Median	75th Percentile
ALL PLANS (n = 264)	2.2	2.0	2.2	2.5	3.4	3.1	3.3	3.5	1.3	0.9	1.2	1.5
MODEL												
Staff	2.3	2.0	2.2	2.4	3.2	3.1	3.3	3.5	1.2	0.8	1.2	1.4
Group	2.1	2.0	2.1	2.3	3.1	3.1	3.2	3.3	1.2	0.9	1.1	1.3
Network	2.3	2.1	2.3	2.5	3.6	3.3	3.5	3.9	1.2	0.8	1.1	1.5
IPA	2.3	2.0	2.3	2.5	3.4	3.2	3.3	3.5	1.4	0.9	1.3	1.7
REGION												
New England	2.3	2.1	2.2	2.4	3.4	3.1	3.3	3.5	1.2	1.0	1.2	1.4
Middle Atlantic	2.3	2.0	2.3	2.5	3.4	3.1	3.3	3.6	1.6	0.9	1.4	1.6
South Atlantic	2.0	1.8	2.0	2.3	3.1	3.0	3.2	3.4	1.1	0.7	0.9	1.2
Midwest	2.3	2.0	2.4	2.6	3.4	3.2	3.4	3.6	1.4	0.9	1.3	1.8
South Central	2.2	2.0	2.2	2.4	3.1	3.2	3.3	3.4	1.3	0.9	1.2	1.6
Mountain	2.6	2.1	2.2	3.0	3.8	3.1	3.4	4.1	1.6	1.1	1.3	2.0
Pacific	2.2	1.8	2.2	2.4	3.4	3.1	3.2	3.7	1.0	0.6	1.1	1.3
SIZE												
0–19,999	2.2	1.9	2.3	2.6	3.3	3.0	3.3	3.6	1.4	0.9	1.3	1.7
20,000–49,999	2.3	2.0	2.3	2.5	3.4	3.1	3.3	3.5	1.3	0.9	1.2	1.6
50,000–99,999	2.2	2.0	2.2	2.4	3.4	3.1	3.4	3.5	1.2	0.8	1.3	1.4
100,00+	2.2	2.0	2.2	2.4	3.3	3.1	3.3	3.4	1.4	0.9	1.1	1.4
PLAN AGE												
2–3	2.3	2.0	2.3	2.6	3.5	3.2	3.7	3.9	1.3	0.9	1.3	1.3
4–7	2.3	2.1	2.3	2.5	3.4	3.2	3.4	3.6	1.4	0.9	1.3	1.7
8–15	2.3	2.0	2.2	2.4	3.3	3.1	3.3	3.5	1.4	1.0	1.2	1.5
16+	2.1	1.9	2.1	2.2	3.2	3.1	3.2	3.3	1.0	0.8	1.0	1.3
TAX STATUS												
Nonprofit	2.3	2.0	2.2	2.5	3.4	3.1	3.3	3.6	1.4	0.8	1.2	1.5
For-profit	2.2	2.0	2.2	2.5	3.3	3.1	3.3	3.5	1.3	0.9	1.2	1.5
QUALIFICATION STATUS												
Federally Qualified	2.2	2.0	2.2	2.4	3.3	3.1	3.3	3.5	1.3	0.9	1.2	1.5
Non-qualified	2.3	1.9	2.2	2.6	3.4	3.1	3.3	3.6	1.3	0.8	1.3	1.7
OWNER												
Blue Cross/Blue Shield	2.2	1.9	2.2	2.5	3.3	3.1	3.3	3.5	1.7	0.9	1.3	1.9
Commercial Insurer	2.2	2.0	2.2	2.4	3.3	3.1	3.3	3.6	1.2	0.9	1.2	1.4
National HMO Company	2.2	2.0	2.2	2.4	3.4	3.1	3.2	3.4	1.1	0.8	1.2	1.4
Independent	2.3	2.0	2.3	2.5	3.4	3.2	3.3	3.6	1.4	0.9	1.3	1.6
Provider-sponsored	2.2	1.9	2.2	2.5	3.4	3.2	3.3	3.5	1.2	0.7	1.1	1.5
MULTISTATE ORGANIZATION												
Yes	2.2	2.0	2.2	2.4	3.3	3.1	3.3	3.6	1.2	0.9	1.2	1.4
No	2.3	2.0	2.2	2.5	3.4	3.1	3.3	3.5	1.4	0.9	1.2	1.7

Table 21 (continued) Average Contract Size and Ratio of Multi-enrollee to Single Contracts by Selected Plan Characteristics and Plan Age, 1990

	Average Contract Size				Multi-enrollee Contract Size				Ratio of Multi-enrollee to Single Contracts			
Selected Characteristics, by Plan Age	**Mean**	**25th Percentile**	**Median**	**75th Percentile**	**Mean**	**25th Percentile**	**Median**	**75th Percentile**	**Mean**	**25th Percentile**	**Median**	**75th Percentile**
PLANS > 3 YEARS (N = 255)	2.2	2.0	2.2	2.5	3.3	3.1	3.3	3.5	1.3	0.9	1.2	1.5
MODEL												
Staff	2.1	1.9	2.1	2.4	3.2	3.1	3.3	3.6	1.2	0.8	1.2	1.4
Group	2.1	2.0	2.1	2.3	3.1	3.1	3.2	3.3	1.2	0.9	1.1	1.3
Network	2.3	2.1	2.3	2.5	3.6	3.3	3.4	3.7	1.2	0.8	1.2	1.4
IPA	2.3	2.0	2.3	2.5	3.4	3.2	3.3	3.5	1.4	0.9	1.3	1.7
REGION												
New England	2.2	2.0	2.2	2.4	3.4	3.1	3.3	3.5	1.1	0.8	1.2	1.3
Middle Atlantic	2.3	2.1	2.3	2.5	3.4	3.1	3.3	3.6	1.6	0.9	1.4	1.7
South Atlantic	2.0	1.8	2.0	2.2	3.1	3.0	3.2	3.4	1.1	0.7	0.9	1.2
Midwest	2.3	2.0	2.4	2.6	3.4	3.2	3.4	3.6	1.4	0.9	1.4	1.8
South Central	2.2	2.0	2.2	2.4	3.1	3.2	3.3	3.4	1.3	0.9	1.2	1.6
Mountain	2.6	2.1	2.2	3.0	3.8	3.1	3.4	4.1	1.6	1.1	1.3	2.0
Pacific	2.2	1.8	2.2	2.4	3.4	3.1	3.2	3.4	1.1	0.7	1.1	1.3
SIZE												
0–19,999	2.2	1.9	2.3	2.5	3.3	3.0	3.3	3.6	1.4	0.9	1.3	1.7
20,000–49,999	2.3	2.0	2.3	2.5	3.4	3.1	3.3	3.5	1.3	0.9	1.2	1.6
50,000–99,999	2.2	2.0	2.2	2.4	3.4	3.1	3.4	3.5	1.2	0.8	1.3	1.4
100,00+	2.2	2.0	2.2	2.4	3.3	3.1	3.3	3.4	1.4	0.9	1.1	1.4
PLAN AGE												
4–7	2.3	2.1	2.3	2.5	3.4	3.2	3.4	3.6	1.4	0.9	1.3	1.7
8–15	2.3	2.0	2.2	2.4	3.3	3.1	3.3	3.5	1.4	1.0	1.2	1.5
16+	2.1	1.9	2.1	2.2	3.2	3.1	3.2	3.3	1.0	0.8	1.0	1.3
TAX STATUS												
Nonprofit	2.3	2.0	2.2	2.5	3.4	3.1	3.3	3.6	1.4	0.8	1.2	1.5
For-profit	2.2	2.0	2.2	2.5	3.3	3.1	3.3	3.5	1.3	0.9	1.2	1.6
QUALIFICATION STATUS												
Federally Qualified	2.2	2.0	2.2	2.4	3.3	3.1	3.3	3.5	1.3	0.9	1.2	1.5
Non-qualified	2.3	1.9	2.2	2.6	3.4	3.1	3.3	3.6	1.4	0.8	1.3	1.7
OWNER												
Blue Cross/Blue Shield	2.2	1.9	2.2	2.5	3.3	3.1	3.3	3.5	1.7	0.9	1.3	1.9
Commercial Insurer	2.2	2.0	2.2	2.4	3.3	3.1	3.3	3.5	1.2	0.9	1.1	1.4
National HMO Company	2.2	2.0	2.2	2.4	3.4	3.1	3.2	3.4	1.1	0.8	1.2	1.4
Independent	2.3	2.0	2.3	2.5	3.4	3.2	3.3	3.6	1.4	0.9	1.3	1.6
Provider-sponsored	2.2	1.9	2.2	2.5	3.4	3.2	3.3	3.5	1.2	0.7	1.1	1.6
MULTISTATE ORGANIZATION												
Yes	2.2	2.0	2.2	2.4	3.3	3.1	3.3	3.5	1.2	0.9	1.2	1.4
No	2.3	2.0	2.2	2.5	3.4	3.1	3.3	3.5	1.4	0.9	1.2	1.7
PLANS ≤ 3 YEARS (N = 9)	2.3	2.0	2.3	2.6	3.5	3.2	3.7	3.9	1.3	0.9	1.3	1.3

Source: GHAA's Annual HMO Industry Survey

Table 22 Distribution of HMOs According to Percentage of Membership Comprised of Enrollees of Different Payment Sources, by Plan Age, 1990

Source of Enrollment, by Plan Age	Mean Plan Percentage	Distribution of Plans by Percentage of Enrollees						
		0%	1-19%	20-39%	40-59%	60-79%	80-99%	100%
ALL PLANS (n = 330)								
Private Employer/Union	63.2	5.8	2.7	7.3	20.9	33.6	23.3	6.4
State/municipal/county	16.4	15.5	53.3	21.8	7.0	1.5	0.0	0.9
Federal	6.3	39.1	52.4	7.3	0.9	0.3	0.0	0.0
Medicare	3.5	64.5	30.9	2.4	1.8	0.0	0.0	0.3
Medicaid	5.7	78.2	13.0	2.4	1.8	2.4	0.9	1.2
Self-pay	2.7	55.2	42.7	0.9	0.3	0.3	0.3	0.3
Other[1]	2.2	84.2	13.0	0.9	0.6	0.3	0.9	0.0
PLANS > 3 YEARS (n = 314)								
Private Employer/Union	63.0	5.4	2.2	7.3	22.0	34.4	23.6	5.1
State/municipal/county	16.6	13.7	55.1	21.7	7.3	1.6	0.0	0.6
Federal	6.4	36.9	54.5	7.3	1.0	0.3	0.0	0.0
Medicare	3.7	63.1	32.2	2.5	1.9	0.0	0.0	0.3
Medicaid	5.5	77.7	13.7	2.5	1.9	2.2	0.6	1.3
Self-pay	2.5	54.1	43.9	1.0	0.3	0.3	0.3	0.0
Other[1]	2.3	83.8	13.4	1.0	0.6	0.3	1.0	0.0
PLANS ≤ 3 YEARS (n = 16)								
Private Employer/Union	66.3	12.5	12.5	6.3	0.0	18.8	18.8	31.3
State/municipal/county	12.8	50.0	18.8	25.0	0.0	0.0	0.0	6.3
Federal	3.8	81.3	12.5	6.3	0.0	0.0	0.0	0.0
Medicare	0.1	93.8	6.3	0.0	0.0	0.0	0.0	0.0
Medicaid	10.5	87.5	0.0	0.0	0.0	6.3	6.3	0.0
Self-pay	6.5	75.0	18.8	0.0	0.0	0.0	0.0	6.3
Other[1]	0.1	93.8	6.3	0.0	0.0	0.0	0.0	0.0

Notes:

1. Includes CHAMPUS enrollment. For all plans and plans > 3 years old the mean percentage of CHAMPUS enrollment was 0.3%. For plans ≤ 3 years old the mean percentage of CHAMPUS enrollment was 0.0%. Only four plans of the total of 330 reported CHAMPUS enrollment.

Source: GHAA's Annual HMO Industry Survey.

Table 23 Distribution of HMO Membership by Source of Enrollment and Selected Plan Characteristics, by Plan Age, 1990

		Percentage Distribution By Source						
Selected Characteristics, by Plan Age	**Total Enrollment %**	**Private Employer/ Union**	**State/Muni./ County**	**Federal**	**Medicare**	**Medicaid**	**Self-pay**	**Other[1]**
ALL PLANS (n = 330)	100.0	63.2	16.4	6.3	3.5	5.7	2.7	2.2
MODEL								
Staff	100.0	53.9	18.3	5.7	5.0	11.1	5.1	0.9
Group	100.0	57.0	20.1	10.7	3.1	1.6	3.4	4.1
Network	100.0	64.3	12.0	6.5	3.8	9.6	1.7	2.1
IPA	100.0	66.6	16.0	5.2	3.2	4.8	2.2	2.0
REGION								
New England	100.0	79.4	9.6	3.4	2.2	3.7	1.4	0.2
Middle Atlantic	100.0	67.7	12.1	6.3	2.2	9.8	1.0	0.8
South Atlantic	100.0	53.6	20.7	11.5	2.7	5.2	3.1	3.4
Midwest	100.0	65.5	13.2	4.1	3.1	7.2	3.6	3.3
South Central	100.0	63.1	22.7	8.9	0.6	2.4	0.4	1.9
Mountain	100.0	65.8	20.0	4.7	5.6	0.4	2.5	1.0
Pacific	100.0	54.2	18.5	4.7	9.5	6.5	5.1	1.6
SIZE								
0–19,999	100.0	62.3	16.1	4.3	2.0	10.1	2.3	3.0
20,000–49,999	100.0	65.1	16.5	7.9	3.0	3.6	3.1	0.7
50,000–99,999	100.0	59.3	18.8	6.8	5.3	4.2	3.0	2.6
100,000+	100.0	65.0	15.1	7.0	5.4	2.4	2.6	2.6
PLAN AGE								
2–3	100.0	66.3	12.8	3.8	0.1	10.5	6.5	0.1
4–7	100.0	64.3	16.3	5.6	2.9	7.2	1.4	2.2
8–15	100.0	62.8	19.5	6.5	3.3	3.5	1.6	2.8
16+	100.0	59.0	11.9	9.1	7.1	3.3	8.0	1.6
TAX STATUS								
Nonprofit	100.0	57.5	15.5	5.5	4.7	11.1	2.6	3.0
For-profit	100.0	66.3	16.9	6.7	2.8	2.8	2.7	1.8
QUALIFICATION STATUS								
Federally Qualified	100.0	63.8	17.3	7.9	3.9	2.2	2.6	2.4
Non-qualified	100.0	62.1	15.0	3.7	2.8	11.7	2.9	1.9
OWNER								
Blue Cross/Blue Shield	100.0	67.0	16.2	7.2	1.6	1.2	2.3	4.4
Commercial Insurer	100.0	70.6	16.9	6.0	0.6	1.1	2.7	2.2
National HMO Company	100.0	58.4	16.6	10.2	8.6	2.4	3.1	0.8
Independent	100.0	58.9	15.3	5.0	5.1	11.0	3.1	1.6
Provider-sponsored	100.0	61.2	17.4	5.5	2.8	8.6	2.2	2.4
MULTISTATE ORGANIZATION								
Yes	100.0	67.7	16.9	7.4	3.6	0.8	2.3	1.3
No	100.0	60.3	16.1	5.6	3.4	8.9	3.0	2.8

Table 23 (continued) Distribution of HMO Membership by Source of Enrollment and Selected Plan Characteristics, by Plan Age, 1990

Selected Characteristics, by Plan Age	Total Enrollment %	Percentage Distribution by Source						
		Private Employer/ Union	State/Muni./ County	Federal	Medicare	Medicaid	Self-pay	Other[1]
PLANS > 3 YEARS (n = 314)	100.0	63.0	16.6	6.4	3.7	5.5	2.5	2.3
MODEL								
Staff	100.0	57.1	16.6	5.2	5.4	11.9	2.9	0.9
Group	100.0	57.0	20.1	10.7	3.1	1.6	3.4	4.1
Network	100.0	63.6	12.3	7.2	4.2	8.7	1.8	2.3
IPA	100.0	65.9	16.6	5.3	3.3	4.5	2.3	2.1
REGION								
New England	100.0	81.0	10.0	3.8	2.4	0.9	1.6	0.3
Middle Atlantic	100.0	66.3	12.6	6.6	2.3	10.3	1.1	0.9
South Atlantic	100.0	55.8	19.5	11.4	2.8	3.6	3.2	3.6
Midwest	100.0	64.2	13.6	4.2	3.2	7.6	3.7	3.5
South Central	100.0	63.0	22.6	8.9	0.6	2.5	0.4	1.9
Mountain	100.0	65.8	20.0	4.7	5.6	0.4	2.5	1.0
Pacific	100.0	54.4	19.5	4.9	10.0	6.8	2.8	1.7
SIZE								
0–19,999	100.0	61.6	16.7	4.9	2.2	9.7	1.5	3.4
20,000–49,999	100.0	65.4	16.4	7.6	3.0	3.7	3.2	0.7
50,000–99,999	100.0	58.8	18.8	6.6	5.5	4.4	3.1	2.7
100,000+	100.0	65.0	15.1	7.0	5.4	2.4	2.6	2.6
PLAN AGE								
4–7	100.0	64.3	16.3	5.6	2.9	7.2	1.4	2.2
8–15	100.0	62.8	19.5	6.5	3.3	3.5	1.6	2.8
16+	100.0	59.0	11.9	9.1	7.1	3.3	8.0	1.6
TAX STATUS								
Nonprofit	100.0	58.5	14.7	5.6	4.8	10.7	2.7	3.1
For-profit	100.0	65.7	17.7	6.9	3.0	2.5	2.4	1.9
QUALIFICATION STATUS								
Federally Qualified	100.0	63.7	17.5	7.9	4.0	2.3	2.2	2.4
Non-qualified	100.0	61.8	14.9	3.7	3.1	11.3	3.1	2.1
OWNER								
Blue Cross/Blue Shield	100.0	66.8	16.4	7.1	1.7	1.2	2.4	4.5
Commercial Insurer	100.0	68.9	17.7	6.4	0.6	1.2	2.8	2.3
National HMO Company	100.0	58.4	16.6	10.2	8.6	2.4	3.1	0.8
Independent	100.0	60.8	14.9	5.0	5.5	9.9	2.2	1.7
Provider-sponsored	100.0	60.0	17.7	5.6	3.0	8.9	2.2	2.5
MULTISTATE ORGANIZATION								
Yes	100.0	66.6	17.3	7.7	3.8	0.8	2.3	1.4
No	100.0	60.7	16.1	5.6	3.6	8.5	2.6	2.9
PLANS ≤ 3 YEARS (n = 16)	100.0	66.3	12.8	3.8	0.1	10.5	6.5	0.1

Notes:

1. Includes CHAMPUS enrollment. For all plans and plans > 3 years old the mean percentage of CHAMPUS enrollment was 0.3%. For plans ≤ 3 years old the mean percentage of CHAMPUS enrollment was 0.0%.

Source: GHAA's Annual HMO Industry Survey

Table 24 Characteristics of HMOs' Largest Single Account, by Plan Age, 1990

Types of Largest Account, by Plan Age	# of Plans	Average Plan Enrollment			Distribution of Largest Acct. as % of Total Enrollment						
		Total	Largest Account	Largest Acct. as % of Total[1]	1–10%	11–20%	21–30%	31–40%	41–60%	61–99%	100%
ALL PLANS	339	80,307	12,824	24.5	32.0	31.1	12.4	7.1	8.0	7.1	2.4
Employer	110	52,009	7,626	21.0	34.9	34.9	11.0	6.4	5.5	6.4	0.9
Union	2	20,269	3,884	20.9	*	*	*	*	*	*	*
State/Municipal	99	93,299	18,164	22.3	29.3	33.3	12.1	11.1	11.1	2.0	1.0
County	20	62,451	6,577	22.1	40.0	30.0	5.0	5.0	15.0	0.0	5.0
Federal	66	138,879	16,283	19.3	39.4	27.3	21.2	4.5	3.0	3.0	1.5
Medicare	4	58,512	15,785	30.8	25.0	0.0	25.0	25.0	25.0	0.0	0.0
Medicaid	22	34,244	14,021	62.8	0.0	18.2	4.5	4.5	9.1	45.5	18.2
Self-Pay	3	11,334	1,326	21.9	66.7	0.0	0.0	0.0	33.3	0.0	0.0
Other	13	60,728	9,278	34.6	30.8	38.5	0.0	0.0	7.7	23.1	0.0
PLANS > 3 YEARS											
Total	325	82,934	13,113	23.3	32.4	32.1	12.7	7.1	7.4	6.5	1.9
Employer	103	55,164	7,995	19.4	36.3	36.3	10.8	6.9	2.9	5.9	1.0
Union	2	20,269	3,884	20.9	*	*	*	*	*	*	*
State/Municipal	97	94,133	18,285	21.7	28.9	34.0	12.4	11.3	11.3	2.1	0.0
County	20	62,451	6,577	22.1	40.0	30.0	5.0	5.0	15.0	0.0	5.0
Federal	64	141,753	16,487	19.2	39.1	28.1	21.9	3.1	3.1	3.1	1.6
Medicare	4	58,512	58,512	30.8	25.0	0.0	25.0	25.0	25.0	0.0	0.0
Medicaid	19	37,974	37,974	59.6	0.0	21.1	5.3	5.3	10.5	42.1	15.8
Self-Pay	3	11,334	11,334	21.9	66.7	0.0	0.0	0.0	33.3	0.0	0.0
Other	13	60,728	60,728	34.6	30.8	38.5	0.0	0.0	7.7	23.1	0.0
PLANS ≤ 3 YEARS											
Total	14	19,330	6,100	50.9	21.4	7.1	7.1	7.1	21.4	21.4	14.3
Employer	7	5,599	2,191	44.7	14.3	14.3	14.3	0.0	42.9	14.3	0.0
Union	0	–	–	–	–	–	–	–	–	–	–
State/Municipal	2	52,864	12,286	53.2	*	*	*	*	*	*	*
County	0	–	–	–	–	–	–	–	–	–	–
Federal	2	46,925	9,759	21.9	*	*	*	*	*	*	*
Medicare	0	–	–	–	–	–	–	–	–	–	–
Medicaid	3	10,618	8,656	83.0	0.0	0.0	0.0	0.0	0.0	66.7	33.3
Self-Pay	0	–	–	–	–	–	–	–	–	–	–
Other	0	–	–	–	–	–	–	–	–	–	–

Notes:

1. Represents the mean percentage value for responding plans.

* Distributions are not shown where 2 or fewer plans reported the category as their largest account.

Source: GHAA's Annual HMO Industry Survey

Table 25 Contribution to HMO Membership from Employer Accounts with Fewer than 25 Employees, by Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Number Responding	Percentage of Total Enrollment	Distribution of Percent Small Employer Enrollment								Estimated Percentage of Commercial Enrollment[1,2]
			0%	1–5%	6–10%	11–15%	16–20%	21–30%	31–55%	56–100%	
ALL PLANS	293	10.5	19.1	25.6	29.0	5.1	8.5	5.5	2.7	4.4	11.7
MODEL											
Staff	40	8.0	22.5	30.0	30.0	5.0	7.5	0.0	2.5	2.5	9.7
Group	39	7.0	20.5	23.1	41.0	0.0	10.3	0.0	5.1	0.0	7.8
Network	37	14.7	27.0	18.9	32.4	2.7	2.7	2.7	0.0	13.5	14.7
IPA	177	11.0	16.4	26.6	25.4	6.8	9.6	8.5	2.8	4.0	12.5
REGION											
New England	18	19.6	5.6	16.7	33.3	11.1	0.0	11.1	11.1	11.1	20.6
Middle Atlantic	38	8.3	15.8	34.2	21.1	5.3	18.4	0.0	5.3	0.0	9.1
South Atlantic	50	8.0	40.0	24.0	14.0	4.0	8.0	4.0	4.0	2.0	6.8
Midwest	97	10.1	13.4	26.8	32.0	7.2	8.2	7.2	2.1	3.1	11.7
South Central	35	6.7	14.3	34.3	40.0	0.0	5.7	2.9	0.0	2.9	6.9
Mountain	24	9.8	12.5	29.2	37.5	8.3	0.0	8.3	0.0	4.2	11.1
Pacific	31	18.3	25.8	6.5	32.3	0.0	12.9	6.5	0.0	16.1	24.7
SIZE											
0–19,999	108	12.2	29.6	20.4	23.1	4.6	7.4	3.7	2.8	8.3	13.2
20,000–49,999	84	9.8	19.0	27.4	23.8	2.4	14.3	8.3	2.4	2.4	11.6
50,000–99,999	48	11.3	12.5	20.8	39.6	8.3	4.2	6.3	6.3	2.1	13.7
100,000+	53	7.6	3.8	37.7	39.6	7.5	5.7	3.8	0.0	1.9	7.2
PLAN AGE											
2–3	14	19.0	42.9	35.7	0.0	0.0	0.0	0.0	0.0	21.4	15.4
4–7	151	8.8	24.5	22.5	26.5	6.0	9.3	7.3	2.0	2.0	10.4
8–15	86	11.0	9.3	29.1	36.0	5.8	7.0	4.7	3.5	4.7	11.4
16+	42	13.0	11.9	26.2	33.3	2.4	11.9	2.4	4.8	7.1	16.4
TAX STATUS											
Nonprofit	91	11.9	14.3	23.1	33.0	6.6	8.8	5.5	4.4	4.4	14.9
For-profit	202	9.9	21.3	26.7	27.2	4.5	8.4	5.4	2.0	4.5	10.4
QUALIFICATION STATUS											
Federally Qualified	181	7.9	17.1	27.1	34.8	6.6	7.2	3.9	1.7	1.7	9.1
Non-qualified	112	14.8	22.3	23.2	19.6	2.7	10.7	8.0	4.5	8.9	16.1
OWNER											
Blue Cross/Blue Shield	40	14.4	17.5	17.5	27.5	7.5	12.5	5.0	5.0	7.5	14.5
Commercial insurer	75	4.8	34.7	24.0	30.7	2.7	4.0	2.7	0.0	1.3	5.4
National HMO Company	30	8.5	13.3	30.0	33.3	3.3	13.3	0.0	6.7	0.0	10.9
Independent	88	12.6	14.8	27.3	26.1	8.0	9.1	5.7	4.5	4.5	14.9
Provider-sponsored	60	13.2	10.0	28.3	30.0	3.3	8.3	11.7	0.0	8.3	14.5
MULTISTATE ORGANIZATION											
Yes	107	6.3	25.2	28.0	30.8	2.8	6.5	4.7	0.9	0.9	6.9
No	186	13.0	15.6	24.2	28.0	6.5	9.7	5.9	3.8	6.5	14.8

Table 25 (continued) Contribution to HMO Membership from Employer Accounts With Fewer than 25 Employees, by Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Number Responding	Percentage of Total Enrollment	Distribution of Percent Small Employer Enrollment: 0%	1-5%	6-10%	11-15%	16-20%	21-30%	31-55%	56-100%	Estimated Percentage of Commercial Enrollment[1,2]
PLANS > 3 YEARS	279	10.1	17.9	25.1	30.5	5.4	9.0	5.7	2.9	3.6	11.6
MODEL											
Staff	37	8.6	18.9	29.7	32.4	5.4	8.1	0.0	2.7	2.7	10.2
Group	39	7.0	20.5	23.1	41.0	0.0	10.3	0.0	5.1	0.0	7.8
Network	33	13.5	24.2	18.2	36.4	3.0	3.0	3.0	0.0	12.1	13.2
IPA	170	10.5	15.9	25.9	26.5	7.1	10.0	8.8	2.9	2.9	12.4
REGION											
New England	15	18.3	6.7	6.7	40.0	13.3	0.0	13.3	13.3	6.7	19.3
Middle Atlantic	36	8.8	13.9	33.3	22.2	5.6	19.4	0.0	5.6	0.0	9.6
South Atlantic	47	6.7	40.4	23.4	14.9	4.3	8.5	4.3	4.3	0.0	7.0
Midwest	93	10.5	10.8	26.9	33.3	7.5	8.6	7.5	2.2	3.2	12.3
South Central	35	6.7	14.3	34.3	40.0	0.0	5.7	2.9	0.0	2.9	6.9
Mountain	24	9.8	12.5	29.2	37.5	8.3	0.0	8.3	0.0	4.2	11.1
Pacific	29	16.1	24.1	6.9	34.5	0.0	13.8	6.9	0.0	13.8	21.9
SIZE											
0-19,999	96	11.0	28.1	18.8	26.0	5.2	8.3	4.2	3.1	6.3	12.7
20,000-49,999	83	9.9	19.3	26.5	24.1	2.4	14.5	8.4	2.4	2.4	11.7
50,000-99,999	47	11.5	10.6	21.3	40.4	8.5	4.3	6.4	6.4	2.1	14.1
100,000+	53	7.6	3.8	37.7	39.6	7.5	5.7	3.8	0.0	1.9	7.2
PLAN AGE											
4-7	151	8.8	24.5	22.5	26.5	6.0	9.3	7.3	2.0	2.0	10.4
8-15	86	11.0	9.3	29.1	36.0	5.8	7.0	4.7	3.5	4.7	11.4
16+	42	13.0	11.9	26.2	33.3	2.4	11.9	2.4	4.8	7.1	16.4
TAX STATUS											
Nonprofit	89	12.2	13.5	22.5	33.7	6.7	9.0	5.6	4.5	4.5	15.2
For-profit	190	9.1	20.0	26.3	28.9	4.7	8.9	5.8	2.1	3.2	10.0
QUALIFICATION STATUS											
Federally Qualified	177	8.1	16.4	26.6	35.6	6.8	7.3	4.0	1.7	1.7	9.3
Non-qualified	102	13.7	20.6	22.5	21.6	2.9	11.8	8.8	4.9	6.9	15.7
OWNER											
Blue Cross/Blue Shield	39	14.7	15.4	17.9	28.2	7.7	12.8	5.1	5.1	7.7	14.9
Commercial Insurer	70	5.1	34.3	21.4	32.9	2.9	4.3	2.9	0.0	1.4	5.7
National HMO Company	30	8.5	13.3	30.0	33.3	3.3	13.3	0.0	6.7	0.0	10.9
Independent	81	11.4	12.3	27.2	28.4	8.6	9.9	6.2	2.5	2.5	14.5
Provider-sponsored	59	12.1	10.2	28.8	30.5	3.4	8.5	11.9	0.0	6.8	13.4
MULTISTATE ORGANIZATION											
Yes	102	6.6	24.5	26.5	32.4	2.9	6.9	4.9	1.0	1.0	7.2
No	177	12.2	14.1	24.3	29.4	6.8	10.2	6.2	4.0	5.1	14.3
PLANS ≤ 3 YEARS	14	19.0	42.9	35.7	0.0	0.0	0.0	0.0	0.0	21.4	15.4

Notes:

1. This was estimated by calculating the proportion of enrollment from small employers after excluding Medicare, Medicaid and self-pay enrollees.
2. The total population used for estimating the percentage was less than the number responding to the small employer query; For all plans, n = 275. For plans > 3 Years, n = 263. For plans ≤ 3 Years, n = 12.

Source: GHAA's Annual HMO Industry Survey

Table 26 Percentage of Plans Offering Medicare Supplemental and Individual Enrollment Options by Type, Selected Plan Characteristics, and Plan Age, 1990[1]

Selected Characteristics, by Plan Age	Prepaid Medicare Supplement: Percentage of Plans (n=358)	Prepaid Medicare Supplement: % of Membership (n=126) Mean	Prepaid Medicare Supplement: % of Membership (n=126) Median	Non-conversion Individual Enrollment[2]: Percentage of Plans (n=358)	Non-conversion Individual Enrollment[2]: % of Membership (n=89) Mean	Non-conversion Individual Enrollment[2]: % of Membership (n=89) Median
ALL PLANS	39.7	5.5	2.1	28.2	3.8	2.4
MODEL						
Staff	57.4	4.3	3.9	42.6	4.5	2.3
Group	58.0	8.2	2.8	48.0	3.7	2.7
Network	42.0	7.8	4.3	30.0	6.2	4.6
IPA	30.8	4.0	1.4	19.9	2.5	0.9
REGION						
New England	55.6	3.7	2.2	25.9	2.3	1.5
Middle Atlantic	44.4	3.0	1.7	11.1	5.4	4.9
South Atlantic	23.6	2.0	.7	24.1	6.1	3.1
Midwest	46.4	4.9	2.0	47.7	3.2	1.5
South Central	23.9	5.0	.8	13.0	1.2	.5
Mountain	37.9	16.7	6.9	24.1	5.7	2.5
Pacific	45.7	8.6	6.1	21.7	5.4	4.6
SIZE						
0–19,999	17.3	4.1	2.7	12.7	3.1	1.0
20,000–49,999	35.7	5.1	1.1	24.2	4.2	1.7
50,000–99,999	56.9	4.2	2.6	43.1	4.1	2.7
100,000+	69.3	7.2	2.7	48.0	3.4	2.5
PLAN AGE						
2–3	0.0	0.0	0.0	12.5	*	*
4–7	29.9	2.9	0.8	17.4	3.3	1.8
8–15	54.8	5.7	2.8	40.4	2.9	2.0
16+	55.6	9.6	5.8	46.3	5.9	3.6
TAX STATUS						
Nonprofit	57.0	7.4	3.6	43.4	3.2	2.4
For-profit	30.0	3.2	0.9	19.7	4.4	2.1
QUALIFICATION STATUS						
Federally Qualified	46.0	5.9	2.3	30.7	3.8	2.4
Non-qualified	28.8	4.4	2.0	24.1	3.7	2.2
OWNER						
Blue Cross/Blue Shield	33.3	3.1	2.2	32.7	3.3	2.4
Commercial Insurer	20.9	1.3	0.4	14.1	1.1	0.4
National HMO Company	61.4	11.2	6.8	36.4	3.5	3.1
Independent	48.0	4.6	2.9	37.3	4.7	2.4
Provider-sponsored	41.3	6.0	1.5	24.0	4.0	2.6
MULTISTATE ORGANIZATION						
Yes	39.6	6.7	2.0	20.3	2.4	1.7
No	39.7	4.8	2.2	33.5	4.2	2.5

Table 26 (continued) Percentage of Plans Offering Medicare Supplemental and Individual Enrollment Options by Type, Selected Plan Characteristics, and Plan Age, 1990[1]

	Prepaid Medicare Supplement			Non-conversion Individual Enrollment[2]		
	Percentage of Plans	% of Membership (n = 126)		Percentage of Plans	% of Membership (n = 88)	
Selected Characteristics, by Plan Age	(n = 342)	Mean	Median	(n = 342)	Mean	Median
PLANS > 3 YEARS	41.5	5.5	2.1	28.9	3.8	2.4
MODEL						
Staff	61.4	4.3	3.9	45.5	4.5	2.3
Group	58.0	8.2	2.8	48.0	3.7	2.7
Network	45.7	7.8	4.3	30.4	6.2	4.6
IPA	32.2	4.0	1.4	20.3	2.6	0.9
REGION						
New England	62.5	3.7	2.2	29.2	2.3	1.5
Middle Atlantic	46.5	3.0	1.7	11.6	5.4	4.9
South Atlantic	25.0	2.0	0.7	23.5	6.7	3.6
Midwest	48.6	4.9	2.0	49.1	3.2	1.5
South Central	24.4	5.0	0.8	13.3	1.2	0.5
Mountain	37.9	15.7	6.9	24.1	5.7	2.5
Pacific	47.7	8.6	6.1	22.7	5.4	4.6
SIZE						
0–19,999	19.3	4.1	2.7	12.4	3.3	1.2
20,000–49,999	36.1	5.1	1.1	24.5	4.2	1.7
50,000–99,999	58.9	4.2	2.6	44.6	4.4	2.7
100,000+	69.3	7.2	2.7	48.0	3.4	2.5
PLAN AGE						
4–7	29.9	2.9	0.8	17.4	3.3	1.8
8–15	54.8	5.7	2.8	40.4	2.9	2.0
16+	55.6	9.6	5.8	46.3	5.9	3.6
TAX STATUS						
Nonprofit	57.9	7.4	3.6	44.1	3.2	2.4
For-profit	31.9	3.2	0.9	20.0	4.5	2.2
QUALIFICATION STATUS						
Federally Qualified	47.1	5.9	2.3	31.4	3.8	2.4
Non-qualified	31.4	4.4	2.0	24.6	3.8	2.4
OWNER						
Blue Cross/Blue Shield	34.0	3.1	2.2	33.3	3.3	2.4
Commercial Insurer	22.2	1.3	0.4	13.8	1.1	0.4
National HMO Company	61.4	11.2	6.8	36.4	3.5	3.1
Independent	51.6	4.6	2.9	38.9	4.8	2.7
Provider-sponsored	43.1	6.0	1.5	25.0	4.0	2.6
MULTISTATE ORGANIZATION						
Yes	41.3	6.7	2.0	20.4	2.4	1.7
No	41.7	4.8	2.2	34.6	4.3	2.5

Notes:

1. For the 16 plans ≤ 3 years old, none offered a prepaid Medicare supplement and two plans offered self-pay individual enrollment options.
2. Plans were asked whether they offer a self-pay individual enrollment option other than a conversion or Medicare wrap.

Source: GHAA's Annual HMO Industry Survey

Table 27 Percent of Plans Reporting Multi-HMO Agreements or Diversification Activities by Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Multi-HMO Agreements[1]	Any Additional LOB[2]	Any Specified Diversification Efforts[3]	Any Specified Options[4]	Any Specified Services[5]
ALL PLANS (n = 364)	40.7	46.4	53.6	46.2	34.3
MODEL					
Staff	42.6	38.3	48.9	34.0	31.9
Group	36.4	21.8	25.5	18.2	18.2
Network	56.0	40.0	42.0	38.0	24.0
IPA	37.7	56.1	64.6	58.0	41.5
REGION					
New England	50.0	44.4	44.4	33.3	22.2
Middle Atlantic	45.7	23.9	32.6	21.7	19.6
South Atlantic	34.5	44.8	60.3	51.7	34.5
Midwest	36.6	49.5	50.5	43.2	37.8
South Central	23.4	48.9	61.7	55.3	40.4
Mountain	48.3	65.5	79.3	74.9	41.4
Pacific	60.9	50.0	54.3	50.0	37.0
SIZE					
0–19,999	29.5	41.9	51.9	45.0	31.0
20,000–49,999	35.0	47.1	53.9	48.0	38.2
50,000–99,999	44.8	50.0	48.3	41.4	29.3
100,000 +	64.9	50.7	60.0	49.3	38.7
PLAN AGE					
2–3	12.5	50.0	50.0	50.0	31.3
4–7	36.0	46.8	56.4	50.0	36.2
8–15	49.0	47.6	50.5	41.9	32.4
16 +	49.1	41.8	50.9	40.0	32.7
TAX STATUS					
Nonprofit	50.4	36.9	42.3	29.2	26.2
For-profit	35.3	51.7	59.8	55.6	38.9
QUALIFICATION STATUS					
Federally Qualified	47.0	46.8	52.4	44.6	33.3
Non-qualified	29.9	45.9	55.6	48.9	36.1
OWNER					
Blue Cross/Blue Shield	82.7	32.7	42.3	30.8	19.2
Commercial Insurer	24.2	65.6	70.0	70.0	56.7
National HMO Company	68.2	38.6	43.2	36.4	27.3
Independent	36.3	40.8	47.6	35.0	28.2
Provider-sponsored	21.3	45.3	56.0	49.3	30.7
MULTISTATE ORGANIZATION					
Yes	43.0	54.1	60.8	56.8	43.9
No	39.1	41.2	48.6	38.9	27.8

Table 27 (continued) Percent of Plans Reporting Multi-HMO Agreements or Diversification Activities by Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Multi-HMO Agreements[1]	Any Additional LOB[2]	Any Specified Diversification Efforts[3]	Any Specified Options[4]	Any Specified Services[5]
PLANS > 3 YEARS (n = 348)	42.0	46.3	53.7	46.0	34.5
MODEL					
Staff	43.2	38.6	50.0	34.1	31.8
Group	36.4	21.8	25.5	18.2	18.2
Network	60.9	41.3	43.5	39.1	23.9
IPA	38.9	55.7	64.5	57.6	41.9
REGION					
New England	56.5	45.8	50.0	37.5	25.0
Middle Atlantic	47.7	22.7	31.8	20.5	18.2
South Atlantic	34.5	45.5	60.0	50.9	34.5
Midwest	37.4	48.1	49.1	41.5	36.8
South Central	23.9	47.8	60.9	54.3	41.3
Mountain	48.3	65.5	79.3	75.9	41.4
Pacific	63.6	52.3	56.8	52.3	38.6
SIZE					
0–19,999	31.9	42.2	53.4	45.7	31.0
20,000–49,999	34.3	46.5	53.5	47.5	37.6
50,000–99,999	46.4	48.2	46.4	39.3	30.4
100,000+	64.9	50.7	60.0	49.3	38.7
PLAN AGE					
4–7	36.0	46.8	56.4	50.0	36.2
8–15	49.0	47.6	50.5	41.9	32.4
16+	49.1	41.8	50.9	40.0	32.7
TAX STATUS					
Nonprofit	51.2	37.5	43.0	29.7	26.6
For-profit	36.7	51.4	60.0	55.5	39.1
QUALIFICATION STATUS					
Federally Qualified	48.0	46.9	52.7	44.7	34.1
Non-qualified	30.9	45.1	55.7	48.4	35.2
OWNER					
Blue Cross/Blue Shield	84.3	31.4	41.2	29.4	19.6
Commercial Insurer	24.4	67.1	71.8	71.8	57.6
National HMO Company	68.2	38.6	43.2	36.4	27.3
Independent	37.9	41.7	47.9	34.4	28.1
Provider-sponsored	22.2	43.1	55.6	48.6	30.6
MULTISTATE ORGANIZATION					
Yes	44.1	54.2	61.3	57.0	44.4
No	40.5	40.8	48.5	38.3	27.7
PLANS ≤ 3 YEARS (n = 16)	87.5	50.0	50.0	50.0	31.3

Notes:

1. Based on asking plans "Does your HMO have agreements or is it in the process of implementing agreements with other HMOs addressing the needs of national accounts or employers who wish to offer HMO options under a single umbrella entity?"
2. Based on asking plans "Does your plan offer additional benefit options or 'lines of business' other than the traditional HMO comprehensive health benefit coverage?"
3. Specified diversification activities includes both the options specified in footnote 4 and the services specified in footnote 5.
4. Options include self referral options, PPO options, indemnity options, exclusive multiple options and employer self insured options.
5. Services include freestanding benefits, claims processing, utilization review, employee assistance programs and workers' compensation.

Source: GHAA's Annual HMO Industry Survey

Table 28 Percent of Plans Reporting Specific Diversification Activities by Type of Activity, Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Type of Activity									
	Self Referral Options	PPO Options	Indemnity Options	Exclusive Multiple Options	Self Insured Options	Free Standing Benefits	Claims Processing	Utilization Review	EAP	Workers Compensation
ALL PLANS (n = 364)	19.8	28.0	25.0	16.2	25.3	16.2	12.6	20.9	6.6	6.6
MODEL										
Staff	23.4	19.1	17.0	10.6	17.0	21.3	4.3	10.6	4.3	6.4
Group	9.1	12.7	10.9	7.3	7.3	7.3	5.5	9.1	0.0	3.6
Network	6.0	22.0	18.0	12.0	12.0	8.0	8.0	20.0	2.0	2.0
IPA	25.0	35.4	32.1	20.8	34.9	19.3	17.5	26.4	9.9	8.5
REGION										
New England	22.2	11.1	14.8	11.1	18.5	11.1	3.7	3.7	3.7	7.4
Middle Atlantic	10.9	10.9	6.5	6.5	10.9	13.0	10.9	8.7	6.5	6.5
South Atlantic	20.7	29.3	27.6	13.8	25.9	12.1	10.3	24.1	6.9	10.3
Midwest	18.0	23.4	18.9	13.5	24.3	14.4	14.4	24.3	5.4	3.6
South Central	21.3	44.7	38.3	29.8	38.3	27.7	14.9	27.7	10.6	10.6
Mountain	41.4	37.9	41.4	31.0	41.4	20.7	10.3	24.1	3.4	6.9
Pacific	15.2	41.3	37.0	15.2	21.7	17.4	17.4	21.7	8.7	4.3
SIZE										
0–19,999	14.7	24.8	27.1	17.8	27.1	15.5	10.9	24.0	11.6	7.8
20,000–49,999	23.5	29.4	28.4	22.5	32.4	19.6	15.7	19.6	2.9	8.8
50,000–99,999	20.7	29.3	25.9	13.8	17.2	13.8	10.3	13.8	3.4	3.4
100,000+	22.7	30.7	16.0	6.7	18.7	14.7	13.3	22.7	5.3	4.0
PLAN AGE										
2–3	6.3	43.8	37.5	12.5	31.3	12.5	6.3	18.8	6.3	6.3
4–7	21.3	31.4	31.4	23.4	30.3	18.6	21.3	21.3	8.0	6.4
8–15	17.1	22.9	17.1	8.6	18.1	13.3	13.3	20.0	6.7	4.8
16+	23.6	21.8	14.5	7.3	20.0	14.5	10.9	21.8	1.8	10.9
TAX STATUS										
Nonprofit	12.3	10.8	6.2	3.1	8.5	6.9	8.5	18.5	4.6	3.1
For-profit	23.9	37.6	35.5	23.5	34.6	21.4	15.0	22.2	7.7	8.5
QUALIFICATION STATUS										
Federally Qualified	21.6	31.6	26.0	18.2	23.4	18.2	11.7	18.6	4.8	7.4
Non-qualified	16.5	21.8	23.3	12.8	28.6	12.8	14.3	24.8	9.8	5.3
OWNER										
Blue Cross/Blue Shield	9.6	11.5	9.6	9.6	15.4	5.8	9.6	9.6	1.9	9.6
Commercial Insurer	37.8	60.0	64.4	45.6	48.9	44.4	15.6	27.8	14.4	13.3
National HMO Company	20.5	18.2	15.9	13.6	11.4	9.1	6.8	18.2	2.3	2.3
Independent	14.6	12.6	13.6	1.9	18.4	8.7	11.7	20.4	2.9	3.9
Provider-sponsored	12.0	28.0	9.3	6.7	21.3	4.0	16.0	22.7	8.0	2.7
MULTISTATE ORGANIZATION										
Yes	27.7	46.6	45.3	32.4	34.5	30.4	12.2	22.3	8.8	8.1
No	14.4	15.3	11.1	5.1	19.0	6.5	13.0	19.9	5.1	5.6

Table 28 *(continued)* Percent of Plans Reporting Specific Diversification Activities by Type of Activity, Selected Plan Characteristics and Plan Age, 1990

Selected Characteristics, by Plan Age	Type of Activity									
	Self Referral Options	PPO Options	Indemnity Options	Exclusive Multiple Options	Self Insured Options	Free Standing Benefits	Claims Processing	Utilization Review	EAP	Workers Compensation
PLANS > 3 YEARS (n = 348)	20.4	27.3	24.4	16.4	25.0	16.4	12.9	21.0	6.6	6.6
MODEL										
Staff	25.0	20.5	15.9	11.4	15.9	22.7	2.3	9.1	4.5	4.5
Group	9.1	12.7	10.9	7.3	7.3	7.3	5.5	9.1	0.0	3.6
Network	6.5	21.7	17.4	10.9	10.9	8.7	8.7	19.6	2.2	2.2
IPA	25.6	34.0	31.5	21.2	35.0	19.2	18.2	27.1	9.9	8.9
REGION										
New England	25.0	12.5	16.7	12.5	20.8	12.5	4.2	4.2	4.2	8.3
Middle Atlantic	9.1	9.1	4.5	4.5	9.1	11.4	11.4	9.1	6.8	6.8
South Atlantic	21.8	29.1	25.5	14.5	25.5	12.7	9.1	23.6	7.3	9.1
Midwest	18.9	20.8	17.0	13.2	22.6	14.2	15.1	23.6	4.7	3.8
South Central	21.7	43.5	39.1	30.4	39.1	28.3	15.2	28.3	10.9	10.9
Mountain	41.4	37.9	41.4	31.0	41.4	20.7	10.3	24.1	3.4	6.9
Pacific	15.9	43.2	38.6	15.9	22.7	18.2	18.2	22.7	9.1	4.5
SIZE										
0–19,999	15.5	23.3	26.7	18.1	26.7	15.5	12.1	25.0	12.1	8.6
20,000–49,999	23.8	29.7	27.7	22.8	31.7	19.8	14.9	18.8	3.0	7.9
50,000–99,999	21.4	26.8	25.0	14.3	17.9	14.3	10.7	14.3	3.6	3.6
100,000+	22.7	30.7	16.0	6.7	18.7	14.7	13.3	22.7	5.3	4.0
PLAN AGE										
4–7	21.3	31.4	31.4	23.4	30.3	18.6	13.3	21.3	8.0	6.4
8–15	17.1	22.9	17.1	8.6	18.1	13.3	13.3	20.0	6.7	4.8
16+	23.6	21.8	14.5	7.3	20.0	14.5	10.9	21.8	1.8	10.9
TAX STATUS										
Nonprofit	12.5	10.9	6.3	3.1	8.6	7.0	8.6	18.8	4.7	3.1
For-profit	25.0	36.8	35.0	24.1	34.5	21.8	15.5	22.3	7.7	8.6
QUALIFICATION STATUS										
Federally Qualified	22.1	31.4	26.1	18.6	23.9	18.6	11.9	19.0	4.9	7.5
Non-qualified	17.2	19.7	21.3	12.3	27.0	12.3	14.8	24.6	9.8	4.9
OWNER										
Blue Cross/Blue Shield	9.8	9.8	7.8	9.8	15.7	5.9	9.8	9.8	2.0	9.8
Commercial Insurer	38.8	61.2	65.9	47.1	49.4	44.7	16.5	28.2	15.3	14.1
National HMO Company	20.5	18.2	15.9	13.6	11.4	9.1	6.8	18.2	2.3	2.3
Independent	15.6	11.5	11.5	1.0	17.7	9.4	11.5	19.8	3.1	3.1
Provider-sponsored	12.5	26.4	9.7	6.9	20.8	4.2	16.7	23.6	6.9	2.8
MULTISTATE ORGANIZATION										
Yes	28.2	46.5	45.8	33.1	34.5	30.3	12.7	22.5	9.2	8.5
No	15.0	14.1	9.7	4.9	18.4	6.8	13.1	19.9	4.9	5.3
PLANS ≤ 3 YEARS (n = 16)	6.3	43.8	37.5	12.5	31.3	12.5	6.3	18.8	6.3	6.3

Source: GHAA's Annual HMO Industry Survey

Table 29 Extent of Perceived Pressure on Plans from Employers to Institute Various Changes, by Plan Age, 1990

		Amount of Pressure				
			Percent Responding			
Types of Pressure, by Plan Age	**# Responding**	**Mean[1]**	**None**	**Limited**	**Moderate**	**Heavy**
ALL PLANS						
Reduce Number of HMOs Offered	344	2.8	11.3	21.5	39.0	28.2
Exclusive Multiple Options	345	2.3	20.3	39.1	28.7	11.9
Open-Ended or Self Referral Options	347	2.5	15.3	34.6	32.6	17.6
Experience Rating	346	2.7	7.5	32.1	38.4	22.0
Multi-Year Rate Guarantees	346	2.1	23.1	48.3	22.8	5.8
Negotiated Rates	345	2.5	13.6	37.7	37.1	11.6
Non-Federally Qualified Packages	346	1.8	45.4	35.0	16.5	3.2
Unbundling Basic Benefits	346	1.9	30.9	52.6	14.7	1.7
Flexible Benefits (Cafeteria)	347	2.4	17.0	36.9	34.9	11.2
Increased Patient Cost Share	346	2.6	9.8	32.9	45.7	11.6
Decreased Dependent Contribution	346	2.2	18.8	47.1	25.1	9.0
Expand Mental Health	347	1.9	33.4	46.1	15.6	4.9
Expand Substance Abuse	345	2.0	30.7	44.9	18.6	5.8
Employer Risk Sharing	347	2.0	33.4	37.8	21.9	6.9
Change Employer Contribution Method	346	2.1	26.0	46.2	22.0	5.8
PLANS >3 YEARS						
Reduce Number of HMOs Offered	330	2.8	11.2	22.1	38.5	28.2
Exclusive Multiple Options	331	2.3	19.6	39.3	29.6	11.5
Open-Ended or Self Referral Options	333	2.5	15.3	34.5	33.0	17.1
Experience Rating	332	2.7	7.2	32.2	39.5	21.1
Multi-Year Rate Guarantees	333	2.1	23.1	48.3	22.5	6.0
Negotiated Rates	331	2.5	13.3	37.8	38.1	10.9
Non-Federally Qualified Packages	332	1.8	45.5	34.9	16.3	3.3
Unbundling Basic Benefits	332	1.9	30.7	52.1	15.4	1.8
Flexible Benefits (Cafeteria)	333	2.4	16.2	36.6	35.4	11.7
Increased Patient Cost Share	332	2.6	9.0	33.4	45.5	12.0
Decreased Dependent Contribution	332	2.3	17.8	47.9	25.0	9.3
Expand Mental Health	333	1.9	32.7	46.5	15.6	5.1
Expand Substance Abuse	331	2.0	30.2	45.6	18.4	5.7
Employer Risk Sharing	333	2.0	33.9	38.7	21.0	6.3
Change Employer Contribution Method	332	2.1	25.3	47.0	22.0	5.7
PLANS ≤3 YEARS						
Reduce Number of HMOs Offered	14	2.9	14.3	7.1	50.0	28.6
Exclusive Multiple Options	14	2.1	35.7	35.7	7.1	21.4
Open-Ended or Self Referral Options	14	2.6	14.3	35.7	21.4	28.6
Experience Rating	14	2.9	14.3	28.6	14.3	42.9
Multi-Year Rate Guarantees	13	2.1	23.1	46.2	30.8	0.0
Negotiated Rates	14	2.5	21.4	35.7	14.3	28.6
Non-Federally Qualified Packages	14	1.8	42.9	35.7	21.4	0.0
Unbundling Basic Benefits	14	1.6	35.7	64.3	0.0	0.0
Flexible Benefits (Cafeteria)	14	1.9	35.7	42.9	21.4	0.0
Increased Patient Cost Share	14	2.2	28.6	21.4	50.0	0.0
Decreased Dependent Contribution	14	1.9	42.9	28.6	28.6	0.0
Expand Mental Health	14	1.6	50.0	35.7	14.3	0.0
Expand Substance Abuse	14	1.9	42.9	28.6	21.4	7.1
Employer Risk Sharing	14	2.6	21.4	14.3	42.9	21.4
Change Employer Contribution Method	14	1.9	42.9	28.6	21.4	7.1

Note:

1. Mean is provided as a measure of central tendency. In the questionnaire the responses were coded: (1) None, (2) Limited, (3) Moderate, and (4) Heavy.

Source: GHAA's Annual HMO Industry Survey

APPENDICES

Table A-1 Response Rates to GHAA's Fourth Annual Industry Survey by Selected Plan Characteristics, 1989–1990.[1]

	Response Rate (%)							Enrollment Response Rate		
								%Response		
Selected Characteristics	**Number Surveyed[2]**	**Number Responding**	**All Plans**	**>3**	**≤3**	**Total Enrollment**	**Respondent Enrollment**	**All plans**	**>3**	**≤3**
TOTAL	552	372	67.4	70.2	52.8	34,556,700	27,966,705	80.9	82.0	54.5
MODEL[3]										
Staff	60	45	75.0	76.8	50.0	4,381,373	3,997,253	91.2	91.5	72.4
Group	77	59	76.6	78.4	33.3	10,365,008	10,007,192	96.5	96.8	33.2
Network	82	58	70.7	72.3	64.7	5,071,842	4,196,051	82.7	83.9	50.2
IPA	333	210	63.1	66.0	50.8	14,738,477	9,766,209	66.3	67.1	55.2
REGION										
New England	39	28	71.8	77.8	58.3	2,552,788	2,264,223	88.7	91.5	47.4
Middle Atlantic	68	47	69.1	69.8	66.7	4,763,421	3,128,515	65.7	66.0	60.9
Midwest	170	114	67.1	67.6	63.6	8,296,128	6,348,207	76.5	77.0	64.8
South Atlantic	90	58	64.4	68.0	46.7	3,806,271	2,968,454	78.0	78.6	66.5
South Central	69	47	68.1	72.1	37.5	2,548,788	2,014,687	79.0	82.4	25.3
Mountain	41	30	73.2	76.5	57.1	2,124,892	1,840,226	86.6	87.9	63.3
Pacific	75	48	64.0	70.8	20.0	10,464,412	9,402,391	89.9	90.4	11.9
SIZE										
0–19,999	213	127	59.6	62.8	52.3	2,135,756	1,308,751	61.3	63.3	54.7
20,000–49,999	171	109	63.7	65.1	54.5	5,376,171	3,466,296	64.5	65.8	54.9
50,000–99,999	79	62	78.5	79.2	50.0	5,653,675	4,496,105	79.5	80.1	51.5
100,000+	68	57	83.8	83.8	–	9,578,641	8,220,545	85.8	85.8	–
250,000+	21	17	81.0	81.0	–	11,812,457	10,475,008	88.7	88.7	–
PLAN AGE										
2–3	89	47	52.8	–	52.8	1,299,303	708,400	54.5	–	54.5
4–7	272	177	65.1	65.1	–	9,188,324	6,215,919	67.7	67.7	–
8–15	125	96	76.8	76.8	–	11,642,761	9,394,762	80.7	80.7	–
16–25	49	38	77.6	77.6	–	4,729,897	3,986,209	84.3	84.3	–
26+	17	14	82.4	82.4	–	7,696,415	7,661,415	99.5	99.5	–
GHAA MEMBERS										
Member	274	212	77.4	78.8	68.4	22,686,123	20,489,589	90.3	90.7	71.1
Non-member	278	160	57.6	61.2	41.2	11,870,577	7,477,116	63.0	64.3	45.3
TAX STATUS										
Nonprofit	193	136	70.5	73.5	47.8	18,654,438	16,326,781	87.5	88.0	52.4
For-profit	359	236	65.7	68.3	54.5	15,902,262	11,639,924	73.2	74.5	55.0
QUALIFICATION STATUS										
Federally Qualified	304	231	76.0	76.8	65.0	26,366,682	22,497,622	85.3	85.6	36.6
Non-qualified	248	141	56.9	59.8	68.1	8,190,018	5,469,083	66.8	69.1	88.1

Notes:

1. This analysis is based on information provided by plans for *GHAA's National Directory of HMOs*, 1990 ed. Enrollment and plan characteristics are as of December 31, 1989.
2. Plans surveyed include all HMOs operational as of January 1, 1990.
3. Represents predominate model type as designated by plan.

RESPONDENTS TO THE GHAA ANNUAL HMO INDUSTRY SURVEY

AV-MED Health Plan (Miami, FL)
AmeriMed (Burbank, CA)
American Health Care Providers / American HMO (Flossmoor, IL)
American Health Network HMO of Florida (Jacksonville, FL)
Arizona Health Plan, Inc. / Phoenix IPA (Phoenix, AZ)
Baptist Medical System HMO, Inc. (Little Rock, AR)
Bay Pacific Health Plan (San Bruno, CA)
Bay State Health Care, Inc. (Cambridge, MA)
Blue Care Network - Health Central (Lansing, MI)
Blue Care Network of Southeast Michigan (Southfield, MI)
Blue Care Network of East Michigan (Saginaw, MI)
Blue Care Network, Great Lakes (Grand Rapids, MI)
Blue Choice (St. Louis, MO)
BlueLincs HMO (Tulsa, OK)
CAC-Ramsay (Coral Gables, FL)
CIGNA Health Network Inc. (Dallas, TX)
CIGNA Health Plan MidAtlantic (Columbia, MD)
CIGNA Healthplan of California, Inc. (Glendale, CA)
CIGNA Healthplan of Connecticut (East Hartford, CT)
CIGNA Healthplan of Massachusetts, Inc. (Springfield, MA)
CIGNA Healthplan of Arizona - Phoenix (Phoenix, AZ)
CIGNA Healthplan of Arizona, Inc. - Tucson (Tucson, AZ)
CIGNA Healthplan of Colorado, Inc. (Denver, CO)
CIGNA Healthplan of Florida, Inc. - Maitland (Maitland, FL)
CIGNA Healthplan of Florida, Inc. - Tampa (Tampa, FL)
CIGNA Healthplan of Illinois (Des Plaines, IL)
CIGNA Healthplan of Kansas City (Kansas City, MO)
CIGNA Healthplan of Louisiana, Inc. (Baton Rouge, LA)
CIGNA Healthplan of North Louisiana (Shreveport, LA)
CIGNA Healthplan of Northern California (Oakland, CA)
CIGNA Healthplan of Northern New Jersey, Inc. (Paramus, NJ)
CIGNA Healthplan of Ohio, Inc. Cleveland (Cleveland, OH)
CIGNA Healthplan of Ohio, Inc. Columbus (Columbus, OH)
CIGNA Healthplan of Southern Florida (Miami Lakes, FL)
CIGNA Healthplan of St. Louis (Clayton, MO)
CIGNA Healthplan of Texas (Irving, TX)
CIGNA Healthplan of Texas, Inc. - Houston Division (Houston, TX)
CIGNA Healthplan of Washington Inc. (Seattle, WA)
CIGNA Private Practice Plan (Glendale, CA)
CaliforniaCare (Woodland Hills, CA)
Capital District Physicians' Health Plan (Albany, NY)

Capitol Health Care (Salem, OR)
Care Choices Health Plans / Mercy Alternative (Farmington Hill, MI)
CareAmerica Health Plans, Inc. (Chatsworth, CA)
CareChoice - Chattanooga (Chattanooga, TN)
Carlecare (Urbana, IL)
Carolina Physicians Health Plan, Inc. (Raleigh, NC)
Central Massachusetts Health Care, Inc. (Worcester, MA)
Central Medical Health Plan (Pittsburgh, PA)
Central Minnesota Group Health Plan (St. Cloud, MN)
Chicago HMO Ltd. (Chicago, IL)
ChoiceCare (Cincinnati, OH)
ChoiceCare - Long Island (Uniondale, NY)
Coastal Bend Health Plan (Corpus Christi, TX)
Columbia Medical Plan, Inc. (Columbia, MD)
Community Blue, HMO of Blue Cross of Western New York, Inc. (Buffalo, NY)
Community Choice Health Plan, Inc. (Two Rivers, WI)
Community Health Care Plan (New Haven, CT)
Community Health Group (Chula Vista, CA)
Community Health Plan (W. Springfield, MA)
Community Health Plan (Latham, NY)
Community Health Plan (Cincinnati, OH)
Community Health Plan (Burlington, VT)
Community Health Plan - L.A. County Dept. of Health Services (Los Angeles, CA)
Community Health Plan of the Mary Imogene Bassett Hospital (Cooperstown, NY)
Companion Health Care Corp. (Columbia, SC)
Compcare Health Services Insurance Corporation (Milwaukee, WI)
Complete Health, Inc. (Birmingham, AL)
Comprecare, Inc. (Aurora, CO)
Comprehensive Health Services Inc [illegible]troit, MI)
ConnectiCare, Inc. (Farmington, C[illegible]
Constitution Health Network (Meriden, CT)
Contra Costa Health Plan (Martinez, CA)
D.C. Chartered Health Plan, Inc. (Washington, DC)
DAKOTACARE (Sioux Falls, SD)
DeanCare HMO (Middleton, WI)
Delaware Valley HMO (Concordville, PA)
Delmarva Health Care Plan, Inc. (Easton, MD)
Deseret Healthcare (Salt Lake City, UT)
Dreyer HMO (Aurora, IL)
EQUICOR Health Plan (Chicago, IL)
EQUICOR Health Plan (Overland Park, KS)
EQUICOR Health Plan (Oklahoma City, OK)
EQUICOR Health Plan (Memphis, TN)
EQUICOR Health Plan (Brentwood, TN)
EQUICOR Health Plan Of Utah, Inc. (Salt Lake City, UT)
EQUICOR Health Plan of California, Inc. (San Diego, CA)
EQUICOR Health Plan of Florida Inc. (St. Petersburg, FL)

EQUICOR Health Plan, Inc. (Wichita, KS)
EQUICOR Health Plan, Inc. (Salina, KS)
EQUICOR Health Plan, Inc. (Raleigh, NC)
EQUICOR Health Plan, Inc. (Houston, TX)
EQUICOR Health Plan, Inc. (Glen Allen, VA)
EQUICOR Health Plan, Inc. (Virginia Beach, VA)
Eau Claire Health Protection Plan (Wausau, WI)
Educators Health Care, Inc. (Murray, UT)
Employees Choice Health Option (Salt Lake City, UT)
Employer's Health Care Plan (Green Bay, WI)
Exclusive HealthCare, Inc. (Omaha, NE)
FHP Of New Mexico, Inc. (Albuquerque, NM)
FHP, Inc. (Tempe, AZ)
FHP, Inc (Cerritos, CA)
FHP, Inc. (Tamuning, GU)
FHP, Inc. (Utah Region) (Salt Lake City, UT)
FIRSTSOURCE, Inc. (Albuquerque, NM)
Fallon Community Health Plan (West Boylston, MA)
Family Health Plan (Des Moines, IA)
Family Health Plan (Toledo, OH)
Family Health Plan Cooperative (Elm Grove, WI)
Family Health Plan Corporation (Newton, KS)
Family Health Plan, Inc. (Miami Lakes, FL)
Florida First Health Plan (Winter Haven, FL)
Florida Health Care Plan, Inc. (Daytona Beach, FL)
Foundation Health Plan (Rancho Cordova, CA)
Foundation Health Plan (FHP) (Endwell, NY)
Free State Health Plan, Inc. (Timonium, MD)
Freedom Health Care (Wayne, PA)
Garden State Health Plan (Trenton, NJ)
Geisinger Health Plan (Danville, PA)
George Washington University Health Plan, Inc. (Washington, DC)
Golden Bay Health Plan (San Francisco, CA)
Grand Valley Health Plan (Grand Rapids, MI)
Greater Amarillo Health Plan Inc. (Amarillo, TX)
Greater Atlantic Health Service, Inc. (Philadelphia, PA)
Greater Wisconsin Rapids Health Protection Plan (Wausau, WI)
Green Bay Health Protection Plan (Wausau, WI)
Group Health (Rochester, NY)
Group Health Association, Inc. (Washington, DC)
Group Health Cooperative of Eau Claire (Eau Claire, WI)
Group Health Cooperative of Puget Sound (Seattle, WA)
Group Health Cooperative of South Central Wisconsin (Madison, WI)
Group Health Northwest (Spokane, WA)
Group Health Plan, Inc. (St. Louis, MO)
Group Health, Inc. (Minneapolis, MN)
Guam Memorial Health Plan (GMHP) (Agana, GU)

Gulf South Health Plans, Inc. (Baton Rouge, LA)
HEALS, Personal Care Physician Health Plan (Emeryville, CA)
HEALTH OPTIONS, INC. (Jacksonville, FL)
HIP Network of Florida, Inc. (Ft. Lauderdale, FL)
HIP of New Jersey-A Division of HIP / Rutgers Health Plan (Robbinsville, NJ)
HMO America - Indiana, Inc. (Chicago, IL)
HMO Arizona (Phoenix, AZ)
HMO Arkansas, Inc. (Little Rock, AR)
HMO Colorado (Denver, CO)
HMO Georgia (Atlanta, GA)
HMO Health Ohio / BC & BS of Ohio (Cleveland, OH)
HMO Iowa (Des Moines, IA)
HMO Kansas, Inc. (Topeka, KS)
HMO Kentucky, Inc. (Louisville, KY)
HMO Minnesota (St. Paul, MN)
HMO Nebraska, Inc. (Omaha, NE)
HMO Rhode Island (Providence, RI)
HMO Virginia, Inc. (Richmond, VA)
HMO Washington (Seattle, WA)
HMO of Northeastern PA (Wilkes-Barre, PA)
HMO of Wisconsin Insurance Corporation (Prairie du Sac, WI)
Harris Health Plan-(Fort Worth, TX)
Harvard Community Health Plan (Brookline, MA)
Hawaii Medical Services Assn / Community Health Program (Honolulu, HI)
Health Alliance Plan of Michigan (Detroit, MI)
Health Care Plan, Inc. (Buffalo, NY)
Health Insurance Plan of Greater New York (New York, NY)
Health Maintenance Plan (Cincinnati, OH)
Health Maintenance of Indiana / Key Health Plan (Indianapolis, IN)
Health Net (Van Nuys, CA)
Health Network of Colorado Springs, Inc. (Colorado Spring, CO)
Health New England (Springfield, MA)
Health Plan Hawaii (Honolulu, HI)
Health Plan of Nevada, Inc. - Las Vegas (Las Vegas, NV)
Health Plan of the Upper Ohio Valley, Inc. (St. Clairsville, OH)
Health Power of Columbus / Family HealthNet of Ohio (Columbus, OH)
Health Power of Dayton, Inc. (Columbus, OH)
Health Services Medical Corp. Slocum Dickson Medical Network (Baldwinsville, NY)
Health Services Medical Corp. (Baldwinsville, NY)
HealthAmerica Corporation of Pennsylvania (Pittsburgh, PA)
HealthAmerica of Pennsylvania, Inc. (Camp Hill, PA)
HealthCare, Inc. (North Haven, CT)
HealthChicago, Inc. (Lisle, IL)
HealthGuard Services, Inc. / SelectCare (Eugene, OR)
HealthGuard of Lancaster Inc. (Lancaster, PA)
HealthKeepers of Virginia, Inc. (Richmond, VA)
HealthOhio, Inc. (Marion, OH)

HealthPlus (Seattle, WA)
HealthPlus, Inc. (Riverdale, MD)
HealthWays, Inc. (Iselin, NJ)
HealthWise (Lexington, KY)
HealthWise (Salt Lake City, UT)
Healthcare Delaware (Wilmington, DE)
Healthshield (Poughkeepsie, NY)
Healthsource Maine (Yarmouth, ME)
Healthsource South Carolina (Charleston, SC)
Heart of America HMO (Rugby, ND)
Heritage Health Plan of South Florida (Miami, FL)
Heritage National Health Plan, Inc. (Davenport, IA)
HomeTown Hospital Health Plan (Massillon, OH)
Humana Health Care Plan - Lexington (Lexington, KY)
Humana Health Plan Inc. (Louisville) (Louisville, KY)
Humana Health Plan of TX, Inc. - Humana HP Corpus Christi (Corpus Christi, TX)
Humana Medical Plan Inc. (South Florida) (Miami, FL)
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Valley Health Plan (San Jose, CA)
ValuCare (Fresno, CA)
Welborn HMO (Evansville, IN)
West Alabama Health Services, Inc. (Eutaw, AL)
Western Ohio Health Care Plan (Dayton, OH)
Wisconsin Health Organization Insurance Corporation, Inc. (Milwaukee, WI)

HMO INDUSTRY PROFILE

VOLUME 2: PHYSICIAN STAFFING AND UTILIZATION PATTERNS

by

Dennis Hodges, M.S.P.H.
Kevin Camerlo, B.A.
Marsha Gold, Sc.D.

1991 Edition

Data from the Group Health Association of America's
Annual HMO Industry Survey

September 1991

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VOLUMES IN THE SERIES

Volume 1: Benefits, Premiums, and Market Structure in 1990

Volume 2: Physician Staffing (1990) and Utilization Patterns (1989)

Volume 3: Financial Performance, 1989

Each volume incorporates analysis of both current characteristics and trends.

PREFACE

The landscape of the health care environment is undergoing dramatic change. Once viewed as alternative delivery systems, HMOs now are becoming the dominant system in some communities and for some employer groups. Moreover, the concepts HMOs represent are increasingly reflected throughout the entire health care system as purchasers aim to identify how best to contain costs and maintain quality, and society attempts to address the needs of the 31 to 37 million Americans who lack health insurance coverage.

Under these circumstances, it is critical that information and analysis be available so that the experience of the most successful models of managed care can be understood. For this reason, the Group Health Association of America, Inc. (GHAA), the oldest and largest trade association representing prepaid managed health care systems, initiated the Annual HMO Industry Survey. *The HMO Industry Profile* is the major vehicle through which data from this survey are distributed.

This year's series of reports presents the results of GHAA's fifth Annual HMO Industry Survey. In its multiple volumes, the report provides information on a number of dimensions of HMO organization, performance, and trends, including benefits, premiums, market structure, utilization rates, and financial measures. Each volume incorporates an analysis of both current characteristics and trends.

These reports provide the most comprehensive and detailed set of information on HMOs available, with a range of information virtually unsurpassed by that developed by any other segment of the health care industry. The reports reflect the efforts of GHAA's Research and Analysis Department under its Director, Marsha Gold, Sc.D.

The reports would have been impossible to produce without extensive industry cooperation. The considerable time plans devoted to providing data is particularly impressive given today's competitive climate and economic pressures.

Developing a statistical base for any industry is a long-term process. We continue to make improvements in the content and format of the Survey and *Profile*, based on feedback from our members and the broad spectrum of other users of the reports. We have been encouraged that the range of information provided has been useful to a diverse set of audiences and welcome further suggestions as we proceed with this effort.

James Doherty
President and CEO
Group Health Association
of America, Inc.

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This volume was prepared by Dennis Hodges, M.S.P.H., Research Associate, under the direction of Marsha Gold, Sc.D., Research and Analysis Director. Mr. Hodges was also responsible for all aspects of survey operations related to the GHAA's Annual HMO Industry Survey. Kevin Camerlo, B.A., contributed to the data analysis for this volume and the general data management and editing process for the survey. Constance Barnes provided secretarial support.

Professor Sam Shapiro of Johns Hopkins University provided advice on survey methods, as he has from the initiation of this project. We are particularly grateful to him for his continuing interest and support for this project and for his contribution to it.

As always, we wish to thank all the HMOs that responded to the survey, taking time to collate from across their organizations the requested statistics. Without the support of the industry, this report would not exist.

Dennis Hodges, M.S.P.H.
Project Manager, Annual HMO Industry Survey

Marsha Gold, Sc.D.
Director, Research and Analysis

September 1991

HIGHLIGHTS

This report is based on the Group Health Association of America's fifth Annual Health Maintenance Organization (HMO) Industry Survey. The mail survey was sent to all HMOs operational on or before January 1, 198[illegible]. With the exception of physician staffing information, findings are for 1989 or, when they refer to a specific point in time, for December 31, 1989. Physician staffing and other medical provider information is for March 31, 1990. Trends in utilization are analyzed based on responses for 1989 and data from previous surveys undertaken in the 1985-1988 period.

The 372 responding plans enrolled 28.2 million members on December 31, 1989. Responding plans represent 67% of all surveyed HMOs; their members include 81% of the national enrollment in the plans for this period. Plans over 3 years old (established plans) had a higher response rate to the survey: 70% of these plans responded. These plans included 82% of the enrollment in all HMOs over 3 years old. With the maturation of the industry, most plans were in the "established" category in 1989. Unless otherwise stated, the highlighted findings refer to HMOs over 3 years old.

Physician Staffing

- On average, staff and group model HMOs had 4.2 total physicians per 1,000 enrollees. The percentage of primary care physicians to total physicians was 49% for these plans.
- The average number of total physicians per 1,000 in network and individual practice association (IPA) plans was 37.3. The percentage of primary care physicians to total physicians was 36%.
- In staff and group model plans, the ratio of full-time physicians to 1,000 enrollees was 1.3. The ratio of full-time primary care physicians per 1,000 enrollees was 0.8. For staff and group model plans, 70% of the physicians were full-time; 73% of these full-time physicians were primary care providers.

Non-physician Staffing

- Staff and group model plans were almost twice as likely as network and IPA plans to use nurse practitioners, physician assistants, and nurse midwives (86% versus 48%). However, almost half (48%) of network and IPA plans made some use of these professionals.

Types of Provider Settings

- More than three-quarters of all staff and group model plans were based on large multispecialty group practices, either exclusively or in conjunction with other arrangements.
- Forty-five percent of IPAs defined their typical medical provider network as solo physicians or partnership arrangements; an additional 15% used small groups (3-7 physicians), either alone or with solo practice.

Payment Methods Used by HMOs

- Fifty-six percent of the plans used capitated payments to primary care physicians in 1990; 28% used fee-for-service payments; 15% used salaried arrangements.
- Salaried arrangements were most common in staff model plans; 82% of staff models used this as their predominant method.
- In 1990, 59% of IPA plans capitated their primary care physicians, 40% paid fee-for-service, and 1% paid on a salaried basis. (In the past, IPAs tended to pay physicians on a fee-for-service basis.)

Overall Utilization

- In 1989, HMOs provided an average number of 405 inpatient days per 1,000 enrollees. This average represents a discharge rate of 87.5 per 1,000 enrollees and an average length of stay of 4.6 days. HMOs provided an average of 5.0 ambulatory encounters per member per year; 4.0 of these encounters were with physicians.

- For the under-65 population, the average number of inpatient days per 1,000 enrollees was 354, compared with 1,438 days per 1,000 enrollees for those 65 and over (the elderly). Encounters per member per year were also higher for the elderly than for the under-65 population (8.8 versus 4.9).

- Aggregate average inpatient utilization rates for enrollees in HMOs (i.e., weighted averages) were substantially below the national average. HMOs provided 316 inpatient days per 1,000 enrollees under age 65, compared with a national average of 499 inpatient days per 1,000 enrollees. Weighted average HMO rates for the elderly were 1,545 days per 1,000, versus a national average of 2,930 days per 1,000.

- The weighted average number of physician visits for HMO enrollees was below the national average. For persons under 65 years old, HMOs averaged 3.6 physician encounters per person per year compared with the national average of 4.3 encounters. For the elderly, HMOs averaged 7.0 physician encounters per person per year versus the national average of 8.1 encounters.

Utilization by Plan Characteristics

- Among the under-65 population, discharges per 1,000 enrollees for IPA model plans (87.3 discharges per 1,000) were significantly higher than those reported for staff (74.0), group (75.2), and network (75.1) model plans.

- For the elderly, days per 1,000 enrollees for staff model plans (1,681) were significantly higher than those reported for network model plans (1,092).

- For the under-65 population, inpatient utilization rates for HMOs in the Mountain and Pacific regions were lower than in other regions. In ascending order, the mean days per 1,000 for each of the regions were Pacific, 260; Mountain, 291; South Atlantic, 340; Midwest, 380; South Central, 386; New England, 394; and the Middle Atlantic, 394.

- For the under-65 population, the Pacific region had the lowest discharge rate, with an average of 65.9 per 1,000 enrollees versus the overall average of 81.7 per 1,000 enrollees.

- For the under-65 population, the lowest averages for days per 1,000 (340) occurred in plans with 100,000 enrollees or more. The lowest average discharge rate per 1,000 enrollees (77.1) was for plans with 50,000 to 99,999 enrollees.

- For the under-65 population, IPA model HMOs had a significantly higher average number of physician encounters per member per year than staff and group plans. This may be due to the greater use of non-physician providers (such as nurse practitioners, physician assistants, and midwives) by staff and group models.

Medicare and Medicaid Utilization

- The mean number of Medicare and Medicaid enrollees was 5,676 and 2,727, respectively. For plans that participate in these programs, the average number of enrollees was 12,620 for Medicare and 10,121 for Medicaid.

- Medicare enrollees had an average of 1,956 days per 1,000 enrollees, which represents 267.1 discharges per 1,000 enrollees, and an average length of stay of 7.5 days. Medicare enrollees had an average of 9.3 total encounters per member per year, with 7.1 physician encounters.

- Medicaid enrollees had an average of 501 inpatient days of care per 1,000 enrollees, which represents 115.3 discharges per 1,000 enrollees, and an average length of stay of 4.3 days. Medicaid enrollees had an average of 4.9 total encounters per member per year, with 3.8 physician encounters.

HMO Demographic Profile

- On average, the enrolled population of established plans was 47% male and 53% female. Fifty-two percent of all enrollees in established plans were in the 15-44-year-old group. Overall, females in the primary childbearing years constituted over 28% of the total HMO population in established HMOs.
  - On average, females of childbearing age used 432.0 days per 1,000, compared with 232.4 days per 1,000 for males in the same age group.

Caesarean Section Rates

- The median caesarean section rate for network and IPA model HMOs was 25%, compared with 21% for staff and group model HMOs.
- The mean caesarean section rate for all HMOs in 1989 was 23.7%, compared with the 1989 national average of 23.8%.

Enrollment Turnover

- For all enrollees, the median of new enrollment expressed as a percentage of the previous year's enrollment (year end 1988) was 41%. Disenrollment (terminations), expressed as a percentage of the current year's enrollment plus terminations, was 26%. New enrollment gains and disenrollment were higher for the Medicaid population and lower for the Medicare population.
- For all enrollees and for the Medicare population, HMOs gained 13 enrollees for every 10 enrollees who terminated. On average, the HMO Medicaid population remained stable, with the median HMO gaining 10 enrollees for every 10 who terminated.

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I. INTRODUCTION

This report, volume 2 of a three-volume series, provides a statistical profile of and detailed information on the current characteristics of the Health Maintenance Organization (HMO) industry; it is based on the fifth Annual HMO Industry Survey of the Group Health Association of America, Inc. (GHAA). The three volumes are:

1. Benefits, Premiums, and Market Structure in 1990
2. Physician Staffing (1990) and Utilization Patterns (1989) (this volume)
3. Financial Performance in 1989

Trend analyses are incorporated into each volume, as well as selected special topics collected on a periodic rather than annual basis.

This volume includes information on physician staffing, medical network structure, and physician payment methods. Inpatient and outpatient utilization statistics and trends are presented. Information on HMO enrollee characteristics, caesarean section rates, and enrollment turnover is presented in the special topics section.

For readers who desire survey highlights, key findings follow the acknowledgments. The text reviews and discusses the survey findings. The final section, detailed tables, addresses specific needs for statistical data on HMOs in general and by plan characteristics. To better address user needs, this year's series of detailed tables revises the regional classifications used in presenting data. It also presents data separately for HMOs owned by multistate organizations and others.

All tables report separately and in aggregate results for established plans (over 3 years old) and for new ones (3 years old or less). The characteristics of the established plans are emphasized in this report. The detailed tables can be used for reference on statistics cited. These tables also serve as a source of data on all responding plans and give breakdowns by plan characteristics.

As the HMO industry has grown and diversified, the demand for data on it has increased. The most recent GHAA data indicate that 569 HMOs enrolled 36.5 million Americans in 1990.[1] One in seven Americans is enrolled in an HMO, and this number is likely to grow considerably within 10 years.[2]

GHAA, founded in 1959, is the oldest and largest national association representing prepaid, managed health care systems. The GHAA Annual HMO Industry Survey was initiated 5 years ago as one of several strategies designed to address the need for information on the industry as it grows and evolves. This survey represents the most comprehensive recent effort to examine characteristics of HMOs.

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[1] *Patterns of HMO Enrollment*, 1991 edition (Washington, D.C.: Group Health Association of America, 1991). The statistics are as of December 31, 1990.

[2] Actual enrollment percentages vary widely by geographical areas. Nationally, HMO enrollment includes 15% of the population of the United States and over 17% of covered lives (*ibid*). Market penetration varies widely by geographic area; 22% of individuals in the largest metropolitan areas were enrolled in an HMO in 1990 (*ibid.*). Projecting future trends is difficult, and differing estimates have been made. Kenneth Abramowitz of Sanford C. Bernstein and Company has estimated that 28% of the private pay population would be in HMOs by 1994 and 40% by 2000. Kenneth S. Abramowitz, *The Future of Health Care Delivery in America* (New York: Sanford C. Bernstein and Company, Inc., 1990), p. 34. More conservative estimates have placed HMO enrollment in 1995 at 20%-30% of the population. Karen Davis et al., *Health Care Cost Containment* (Baltimore: Johns Hopkins University Press, 1990). These estimates are based on an Arthur D. Little study predicting 25%-30% enrollment and an Alex Brown and Sons estimate predicting 20%-25% enrollment.

II. OVERVIEW OF METHODS

Data Source and Methods

The fifth Annual HMO Industry Survey was a mail survey sent to all HMOs listed in the *GHAA National Directory of HMOs, 1990*, which includes all HMOs, regardless of type or GHAA membership status. The survey was restricted to those plans operational on or before January 1, 1989.[3] The lengthy questionnaire covered a variety of topics, including plan characteristics, benefits offered, premium rates and rate-setting methods, enrollment and utilization, membership profile, data capabilities and employer data requests, diversification, physician staffing profile, and financial performance.

The questionnaires were mailed in mid-April 1990; a postcard was sent as a reminder to respond two weeks later, and a second mailing to HMOs that had not responded took place three weeks later in the second week of May 1990. In late June 1990, personalized follow-up letters were sent to all nonresponding plans that had responded to previous surveys; some telephone calls for follow-up were also selectively made.

Responding plans were assured of the confidentiality of individual plan data. Most questions referred to status as of March 31, 1990. Utilization and financial statistics were requested for 1989 because plans can most readily provide these on a calendar year basis. Survey execution and content was generally consistent with prior years; as usual, some change in content was made to reflect new needs or the collection of information requested on a periodic basis (e.g., data capabilities).[4] In presenting data by plan characteristic, this year's Profile also introduces changes in the regional classifications used, and a new plan characteristic, "multistate organization," to assist in considering ownership, as noted in the "Guide to Using Detailed Tables."[5]

The survey was sent to 567 of the 591 plans listed in the *Directory*. Of the 24 plans not sent surveys, 18 were excluded because their operational dates were after January 1, 1989, and 6 were excluded for other reasons.[6] Once the survey was underway, an additional 15 plans were eliminated from the sampling frame based on information received. In most cases, this was because the responding plans indicated that component plans surveyed were more appropriately aggregated as a single plan; in one case, a plan was not an HMO in the traditional sense. The net impact of these changes was that 552 plans were considered in identifying the level of response to the survey.[7]

Response Analysis

A total of 372 plans responded to the survey. The Appendix contains a listing of these plans. Overall, respondents to the survey represent 67.4% of all plans operational in 1989; their 28.0 million members include 80.9% of all enrollees in HMOs in the United States at year end 1989.

Appendix Table A-1 includes a tabular display of response rates for various types of plans, based on year end 1989 information included in GHAA's *National Directory of HMOs, 1990*, which was the source used in identifying plans surveyed. General findings and patterns of results are summarized here.

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[3] This was done because very young plans may not be sufficiently established to provide meaningful responses to a number of the items covered in the survey (e.g., utilization and financial performance) and their structures may not be very stable. In addition, we wished to reduce the administrative burden on these very young plans. Although this criterion eliminated a number of plans, the HMO enrollment in these plans is small. We did not feel that omitting these plans would detract from the ability to generalize to the HMO industry.

[4] An April collection date allows for the most current utilization and financial reporting feasible. Because the majority of contracts renew in January, the largest shifts in plan benefits, premiums, and market structure activities occur then. Data for March 31 are probably reasonably representative of the calendar year.

[5] The regional classifications continue to be based on the eight category U.S. Census classifications, but the categories have been regrouped so that the states in regions combining more than one U.S. Census category are more geographically homogeneous in ways likely to influence HMO performance. In addition to the noted changes, the Profile this year combines independent plans with those of "other" ownership because the latter represent only a small number and, in our opinion, would be most similar to independent plans.

[6] Of these other 6, 2 were eliminated because they were not geographically distinct from other included plans, 2 because they were no longer in business, and 2 because they were listed twice in GHAA's *National Directory of HMOs* to address the needs of users of that document.

[7] In a few cases, responding plans submitted more aggregated statistics on utilization and financial statistics. These were allowed when the consolidation appeared consistent with survey intent; inconsistent mergers (e.g., HMO with PPO data) were not allowed.

Response rates to the survey were higher for established plans (those operational for over 3 years) than new plans (those operational for 3 years or less). Although the differences were less than in prior years, 70.2% of established plans responded versus 52.8% of new plans. With the maturation of the industry, 83% of all plans surveyed in this cycle—and 96% of the enrollees in these plans—were in the established plan category based on year end 1989 data. As a result, statistics for these plans are reasonably representative of the typical experience of most HMO enrollees.

Within established plans, response rates were generally good for all plan types; 60% or more of all plans responded in each plan characteristics category that could be examined based on *Directory* data, suggesting that responding plans are reasonably representative. However, the level of response did vary somewhat by plan characteristic. The largest differences were in response rates for federally qualified plans versus others (77% versus 60%) and for GHAA member plans versus others (79% versus 61%). Response rates also were higher for plans with 8 or more years' operational experience than for younger ones; over three-quarters of the former responded while 65% of the plans 4-7 years old responded; response rates also increased with plan size, and were lower for IPA model plans (66%) than others. Some of these patterns could be attributable to the interrelationship of plan age and other plan characteristics.

Because older and larger plans were somewhat more likely to respond to the survey, responding plans represent a larger share of the national HMO enrollment than the share of plans. Responding plans represent 80.9% of the total enrollment of surveyed plans, and 82.0% of all enrollees in established plans at year end 1989. The responding new plans include 54.5% of the national enrollment in new plans with one year's operational experience or more. The lower response rate for new plans is probably related to the intensive organizational efforts needed at the initial operational stage.

Item response for most questions included in this volume of the survey was fairly complete, although the number of plans that responded on each item varied. Responses to items requesting premium rates and employer contribution data were lower than for other items.

Item Response

Item response for most data areas included in this volume varied from the response rates for the survey as a whole, because not all 372 plans responded to the physician staffing or utilization section of the survey and those that did were not always able to complete all items.

For the physician staffing data, the most complete response (323 plans) was for primary care physicians. Item response by type of primary care specialty and for total physicians was lower. Fewer responses were received for the full-time physician questions, in large part because many HMOs, due to their structure, may not have full-time physician providers.

For the utilization data, the most complete data were generally for aggregate items. A total of 321 plans provided inpatient days per 1,000 for all enrollees, representing more than 24.4 million enrollees. Of those plans, 11% were staff, 15% were group, 14% were network, and 60% were IPAs, a distribution fairly similar to the overall survey response. A total of 261 plans provided information on total number of encounters per member per year; these plans include 20.8 million enrollees. Of these plans, 13% were staff, 18% were group, 11% were network, and 58% were IPAs, providing a slightly better representation by group and staff models compared with overall industry response. A smaller number of plans responded to some items, e.g., utilization by age and sex and caesarean section rates. Although this small response detracts from confidence in the generalizability of these items, there is considerable interest in these measures, and this survey is often the only source for this type of information.

The number of responding plans included in the analysis of each item is shown or referenced in the table for that item; in some cases, it is less than the total number of respondents to that item because some analyses required that plans have complete data on several items. These omissions also result in some minor inconsistencies across the same statistics in different tables.

Comparison of Respondents to Last Year's Survey

Response rates were higher to this year's survey than to last year's survey, reflecting the institutionalization of the survey process and its growing support in the industry. Among established plans that are the focus for the analysis, the response rate has increased from 45%-55% to 63%-70% over the past 4 years. (For all plans, the 67% response rate this year compares to 58%, 45%, and 31%, respectively, for the 1990, 1989, and 1988 editions of the Profile.)

As response rates have improved, those responding also have become more representative of the industry as a whole. This fact increases the ability to generalize from the survey. Historically, it also has made comparisons of year-to-year changes more difficult, particularly for those items that vary considerably by plan characteristic. The differences in respondents across the survey years should continue to be considered in analyzing changes in year-to-year responses. However, because response rates have been fairly high for the past 2 years, differences in respondents should present less of a problem in comparing the current survey to last year's than they have in the past.

Of the 372 plans used in this year's analysis, 264, or 80%, were among the 332 plans responding last year. This figure probably understates the overlap across years because of industry consolidation and the difficulty of tracking plans that change ownership. A greater degree of overlap also is likely for established plans, because their response rates to the survey have been higher.

Analytical Techniques and Survey Limitations

The GHAA Annual HMO Industry Survey provides the most comprehensive and detailed source of information currently available on the HMO industry; nonetheless, there are limitations that should be recognized in interpreting the data.

Response rates and patterns should be considered in interpreting the results and generalizing to the industry. Because their response rates are higher and also because they include the vast majority of HMO enrollees, established plan statistics are emphasized in the text and shown separately from the "all plans" figures in the detailed tables[8]. These statistics are likely to be most adaptable to generalization.

While statistics by plan characteristics are informative, the reader should exercise caution in drawing inferences on causality. Many plan characteristics are interrelated, and other factors also may influence plan performance. Additionally, small differences in statistics for categories of respondents should generally be overlooked because they may easily represent random variation.

Because the responding plans are not identical, caution should be used in comparing data across surveys of different years, as noted previously. Because trend analysis is of critical importance, some questions on change were included in this year's survey to assist in identifying trends through the cross-sectional data. In addition, analysis is included on changes within the subset of plans commonly responding across years. Although these subsets provide a less generalizable industry-wide estimate for any given year than the full set of plans responding that year, the subset statistics are a clearer indication of change within a cohort of plans and can be used to validate trends apparent from the cross-sectional comparison across years.

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[8] Although statistics are presented for plans in operation 3 years or less, this year's report does not break these down by plan characteristic. This is because of the relatively small number of total plans included in the group this year (55 for the tables in this volume that are based on 1989).

Finally, the design of most included analysis uses the individual HMO as the unit of analysis rather than weighting plans by total enrollment. The approach used allows a characterization of the industry as reflected in its individual plans, which was the reason it was selected over a weighted analysis. This was felt to be particularly useful because the industry is undergoing changes. Although the approach taken is desirable in a number of ways, it does not necessarily show the average experience for an individual enrollee in an HMO because a disproportionate number of enrollees are in the larger plans.

The statistics in Table 1, which show the distribution of enrollees across responding plans, can be used to identify the ways that specific findings are likely to affect the experience of individual HMO enrollees. For example, although findings for plans 16 years old or older apply to only 13.2% of all responding plans, these plans include 40.4% of all enrollees in responding HMOs. The reader can estimate how a particular statistic translates into the average experience of HMO enrollees by weighting the statistics given for each plan characteristic by the share of the total HMO enrollment represented in plans of that type.

III. CHARACTERISTICS OF RESPONDING PLANS

This section summarizes the major characteristics of responding plans. An overview of characteristics is presented first, followed by a brief comment on some of these characteristics.

Overview of Plan Characteristics

Table 1 presents data on the distribution of responding plans and enrollees among plans of different characteristics. Characteristics of established plans (those operational for over 3 years) are discussed first, followed by those of new plans (those operational for 3 years or less).[9]

Plans Operational for Over 3 Years

Of the 372 responding plans, 317 had been operational for over 3 years. These 317 plans had a total enrollment of 26.0 million persons as of December 31, 1989.

Fifty-six percent of plans operational for more than 3 years are IPAs, with the remainder spread relatively evenly among staff, group, and network model plans. However, group model plans are larger on average and have approximately the same share of enrollment as IPAs (36.3% versus 33.6%, respectively). Over two-thirds (68.5%) of the established plans are federally qualified. Sixty-two percent are for-profit, and 38% are nonprofit.

The median enrollment for established plans was 34,745 members as of December 31, 1989; the mean was 82,089. Most plans are at the younger end of the age distribution (53.6% are 4 to 7 years old), but enrollees are disproportionately distributed in the older plans. Forty-three percent of enrollees in established plans are in the 15.5% of plans operational for 16 years or more; 29.4% of enrollees are in the 13 responding plans that were 26 years old or older. Because 69.5% of all enrollees in established plans are in plans with 100,000 members or more, users may be particularly interested in statistics for these larger plans when they wish to understand the typical enrollee experience.

Plans are located nationwide, but are most concentrated in the Midwest (30.9%). The largest number of enrollees are in Pacific plans (35.8%). Ownership varies considerably, with 38.5% owned by Blue Cross-Blue Shield organizations or commercial insurers, 24.6% independently, 19.6% by providers, and 14.2% by national HMO organizations (3.2% are owned by others). In total, 39.7% of established plans are part of multistate organizations and 60.3% are not; enrollees are about evenly split between both types of plans.

Exhibit 1 shows the number, average age, average enrollment, and percentage of federally qualified and nonprofit plans by both model and ownership. This exhibit is helpful in interpreting statistics presented in this volume, as it provides information on the relationships among plan characteristics that can be used in interpreting results.

As shown in the exhibit, IPA model plans are smaller than plans of other model types, have a younger average age, and also are less likely to be organized on a nonprofit basis. Model type and ownership also are interrelated, with provider-sponsored plans, Blue Cross and Blue Shield-sponsored plans, and commercial insurer-owned plans having a higher proportion of IPA model plans than independently owned plans or plans owned by national HMO organizations. These latter two types of plans tend to be larger and older than other plans.

Plans Operational for 3 Years or Less

Plans operational for 3 years or less (new plans) account for only 14.8% of the respondents to the survey and 5.0% of the total enrollment of all the

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[9] For this purpose, the years in operation are computed based on plan reports of the date they became operational; any year in which a plan was operational for part of the year is considered a full year. For simplicity, all plans with an initial year of operation in 1987 or later are considered to have 3 or fewer years in operation (new plans) for analyses in this volume based on December 31, 1989. The remainder are considered "established." Because the HMO industry is maturing, an ever smaller proportion of all respondents are new plans.

Exhibit 1
Distribution and Selected Characteristics of Plans by Model and Ownership, Plans Over Three Years Old, 1989[1]

Measure	All Plans	Predominant Model Staff	 Group	 Network	 IPA
NUMBER OF PLANS	317	44	54	41	178
Mean Enrollment	82,089	87,215	175,106	96,891	49,193
Median Enrollment	34,745	51,313	54,918	41,494	26,803
Mean Age	9.4	16.7	13.0	9.4	6.5
% Federally Qualified	68.5	70.5	90.7	61.0	62.9
% Nonprofit	38.2	63.6	48.1	48.8	26.4

	Ownership Blue Cross-Blue Shield	 Commercial Insurer	 National HMO Company	 Independent	 Provider
NUMBER OF PLANS	50	72	45	88	62
Mean Enrollment	60,690	35,149	219,102	85,606	49,420
Median Enrollment	44,017	23,459	101,641	37,758	30,988
Mean Age	8.3	7.3	13.4	11.5	6.6
% Staff	8.0	6.9	6.7	31.8	6.5
% Group	8.0	26.4	37.8	9.1	9.7
% Network	20.0	5.6	15.6	17.0	8.1
% IPA	64.0	61.1	40.0	42.0	75.8
% Federally Qualified	62.0	86.1	88.9	59.1	51.6
% Nonprofit	42.0	1.4	37.8	65.9	38.7

Note:
1. Model type, federal qualification and tax status are as of March 31, 1990. Enrollment and plan age are as of December 31, 1989.
Source: GHAA's Annual HMO Industry Survey

respondents. In comparison with established responding plans, the new plans are considerably more likely to be networks or IPAs (92.7%), for-profit (78.2%), and nonfederally qualified (69.1%). The median enrollment was 11,693, with 67.3% of plans having fewer than 20,000 members and only 10.9% of plans having 50,000 members or more. (The mean enrollment was 24,772.)

Comment on the Nature of Various Plan Characteristics

HMOs are complex organizations. As a result, any method of classification results in some simplification. In considering plan characteristics, readers should be aware that some plans use a mix of HMO models, obtain federal qualification for some service areas only, and have complex ownership patterns.

In its analyses of plans, GHAA bases results on the predominant model types, asking plans to determine which definition among four choices—staff, group, network, and IPA—best describes their plan.[10] However, plans may have multiple types of arrangements with physicians to develop a provider network appropriate to the service area of the plan and its characteristics. These arrangements could result in the use of plan components representing a variety of HMO models.

Exhibit 2 provides information on the extent to which plans use a variety of model components in structuring their delivery systems and how these vary by model type. Thirty-five percent of established plans (14.5% of new plans) have components in their

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[10] The following definitions are used in the GHAA Annual HMO Industry Survey: (1) *staff*, an organized prepaid health care system that delivers health services through a salaried physician group that is employed by the HMO unit; (2) *group*, an organized prepaid health care system that contracts with one independent group practice to provide health care services; (3) *network*, an organized prepaid health care system that contracts with two or more independent group practices to provide health services; and (4) *IPA*, an organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations of physicians in independent practice, and/or with one or more multispecialty group practices (but predominantly organized around single solo-specialty practices) to provide health services.

Exhibit 2
Extent of Use of Mixed-Model Plans, Various Measures by Predominant Model Type, Plans Over Three Years Old, 1989[1]

Measure of Mix	Total	Predominant Model Staff	Group	Network	IPA
Component Other Than Predominant Type (All Plans)					
% Yes	34.6	59.1	18.5	53.7	13.1
(Number of Responding Plans)	(315)	(44)	(54)	(41)	(176)
Distribution of Enrollment by Model (Mixed Plans Only)					
Staff	27.8	77.4	4.1	4.8	5.4
Group	16.1	3.5	67.8	11.3	11.7
Network	25.0	10.4	11.0	63.4	9.5
IPA	31.1	8.8	17.1	20.5	73.5
(Number of Plans)	(79)	(25)	(10)	(22)	(22)

Note:
1. Model type is as of March 31, 1990. Enrollment and plan age are as of December 31, 1989.

Source: GHAA's Annual HMO Industry Survey

plans reflecting other than their predominant model type. Staff model plans are most likely to use such components (59.1%), followed by network model plans (53.7%). Group model plans and IPAs are least likely to use them (18.5% and 13.1%, respectively). Of plans using mixed models, 77.4% to 63.4% of their enrollment is included in the predominant model type on average. To better understand how provider networks are structured in HMOs, this year's survey asked plans specifically about the types of practices with which they were affiliated (e.g., size of physician group). These results are analyzed in Chapter IV of this volume.

Federal qualification may also be handled diversely within a single plan, with plans federally qualified in some service areas and not in others. Sixty-nine percent of established plans were federally qualified. Seventy-seven percent of these were federally qualified in all service areas and 33% in some service areas. Of the 30.9% of new plans that were federally qualified, 64.7% were qualified in all service areas and 35.3% were qualified in some service areas.

IV. STAFFING PATTERNS, TYPES OF PROVIDER SETTINGS, AND PHYSICIAN PAYMENT

Physician Staffing

This is the first year that GHAA has presented information on physician staffing patterns. Physician staffing patterns vary by model type in HMOs, just as other measures vary by model type. Tables 2 and 3 summarize the findings. Table 2 presents physician staffing ratios for all physicians. Table 3 presents staffing ratios for full-time physicians.[11] Unlike the other data in this volume, this information is for March 31, 1990.

Total Physician Staffing

Exhibit 3 highlights the differences in physician staffing for staff and group model HMOs compared with network and IPA model plans. For staff and group model HMOs, the average number of total physicians per 1,000 enrollees was 4.2 and the average percentage of primary care physicians to total physicians was 49%. The average ratios for primary care specialties per 1,000 enrollees was 0.9 for general and family practice, 0.6 for internal medicine, 0.4 for pediatrics, and 0.3 for obstetrics/gynecology. The overall ratio for primary care physicians was 2.6 per 1,000.

As expected, there are large differences in the physician staffing ratios for network and IPA model plans compared with staff and group models. The structure of network and IPA model plans is different than that of group and staff models: network and IPA physicians usually devote only a portion of their practice time to an HMO. (The relationship of physicians and the HMO is discussed in the next section, Structure of Medical Provider Networks.) For network and IPA model HMOs, the mean ratio of total physicians to enrollees was 37.3 per 1,000 enrollees. On average, the percentage of primary care physicians to total physicians was 36% for network and IPA models. The average ratios for each of the primary care specialties per 1,000 enrollees were 3.9 for general and family practice, 2.7 for internal medicine, 1.8 for pediatrics, and 1.8 for obstetrics/gynecology. The overall ratio for primary care physicians was 13.6 per 1,000.

Generally, larger HMOs appear to be able to use their physicians more efficiently because of economies of scale (Figure 1). Physician staffing ratios decline with increasing size of plan. For staff and group models, small HMOs had almost three times more primary care physicians per 1,000 enrollees compared with large staff and group mod-

Exhibit 3
Physician Staffing per 1,000 Enrollees, by Physician and Model, Plans Over Three Years Old, 1990

	All Plans	Staff & Group	Network & IPA
Total Physicians	28.6	4.2	37.3
Primary Care	10.2	2.6	13.6
General & Family Practice	3.0	0.9	3.9
Internal Medicine	2.1	0.6	2.7
Pediatrics	1.3	0.4	1.8
OB/GYN	1.3	0.3	1.8

Source: GHAA's Annual HMO Industry Survey

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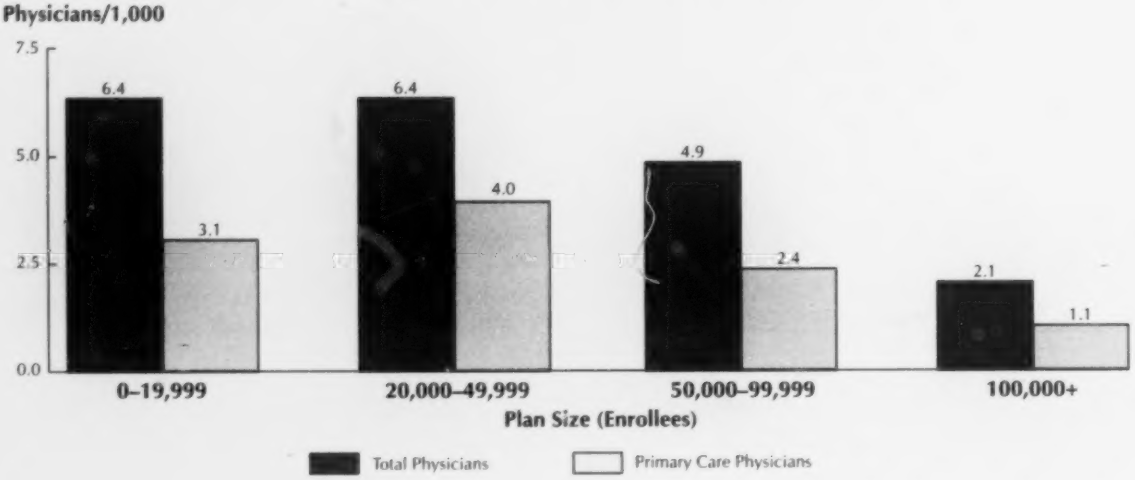
[11] Not all plans could provide full-time physician staffing information. Most network and IPA plans employ few (if any) physicians full-time, with the exception of a medical director and staff. For this reason, the analysis of full-time staffing was confined to staff and group model HMOs.

Figure 1
Total and Primary Care Physicians per 1,000 Enrollees, Plans Over Three Years Old, by Model and Plan Size, 1990

Figure 1a

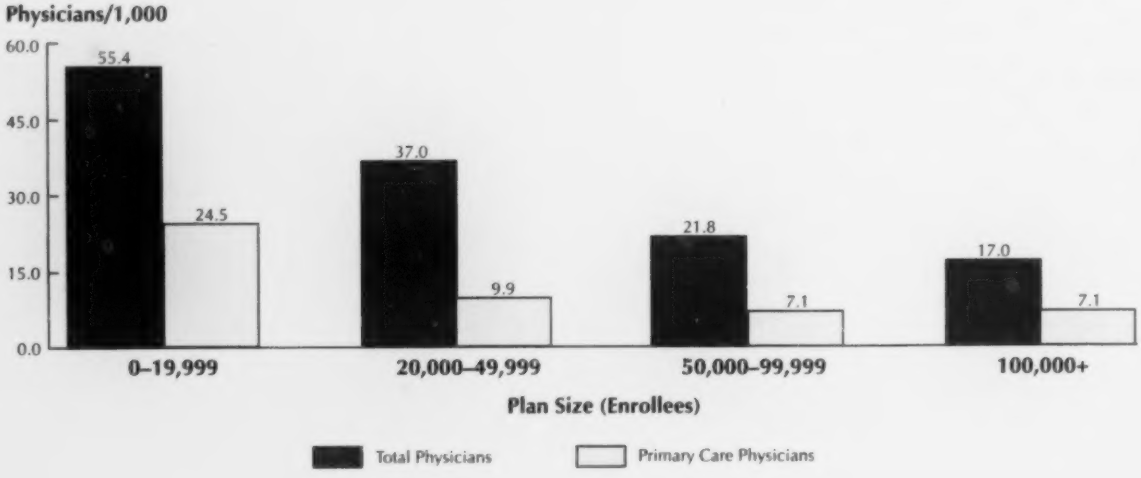
Total and Primary Care Physicians, Staff & Group Plans



Source: GHAA's Annual HMO Industry Survey

Figure 1b

Total and Primary Care Physicians, Network & IPA Plans



els (100,000+ enrollees). In order to provide access to necessary health services HMOs, regardless of their size, need a certain minimum number of physicians to provide the full spectrum of specialty care. Also, common sense tell us that one obstetrician can not be on call every night and two patients can be seen in the hospital almost as easily as one. As group and staff model plans get larger they are more able to use full-time physicians and fewer physicians overall.

Economies of scale also exist for network and IPA plans (Figure 1), but the reasons for this relationship are different. For example, small network and IPA model HMOs had 3.5 times as many contracted physicians compared with large network and IPA models (100,000+ enrollees). One reason is that small HMOs need almost as many contracts with primary care physicians as large HMOs to cover a given geographical area.

Full-time Physician Staffing

Analysis of full-time staffing was confined to HMOs that were either predominately staff or group model HMOs, because IPAs and networks are unlikely to use them. On average, 70% of the physicians worked full-time in group and staff model HMOs; over 73% of these full-time physicians were primary care physicians.

For established plans, the ratio of full-time physicians per 1,000 enrollees was 1.3, and the ratio for primary care physicians was 0.8. The ratios were 0.3 for full-time general/family practice, 0.3 for internal medicine, 0.2 for pediatrics, and 0.1 for obstetrics/gynecology.

As shown in Exhibit 4, the same economies of scale noted for total physicians are apparent when the full-time physician data are examined across plan size categories. Smaller HMOs have 1.5 times as many full-time physicians per 1,000 enrollees as larger HMOs do and 2.4 times as many primary care physicians per 1,000 enrollees. Also, smaller HMOs have a lower percentage of full-time physicians to total physicians compared with larger HMOs. Larger HMOs have a membership base that allows them to provide more services internally; smaller staff and group models must rely more heavily on part-time physicians, contracted providers, and referrals for specialty care. This is not surprising, as only the largest HMOs have the patient load required to staff with full-time physicians for all specialty care.

Non-physician Staffing

Overall, staff and group model plans are almost twice as likely to use nurse practitioners, physician assistants and nurse midwives compared with network and IPA plans (86% versus 48%). (See Figure 2.) However, almost half (48%) of all network and IPA plans made some use of these professionals.

As shown in Figure 2, nurse practitioners and physician assistants were more commonly used than nurse midwives in both group and staff plans and network and IPA plans. Twenty-eight percent of all

Exhibit 4

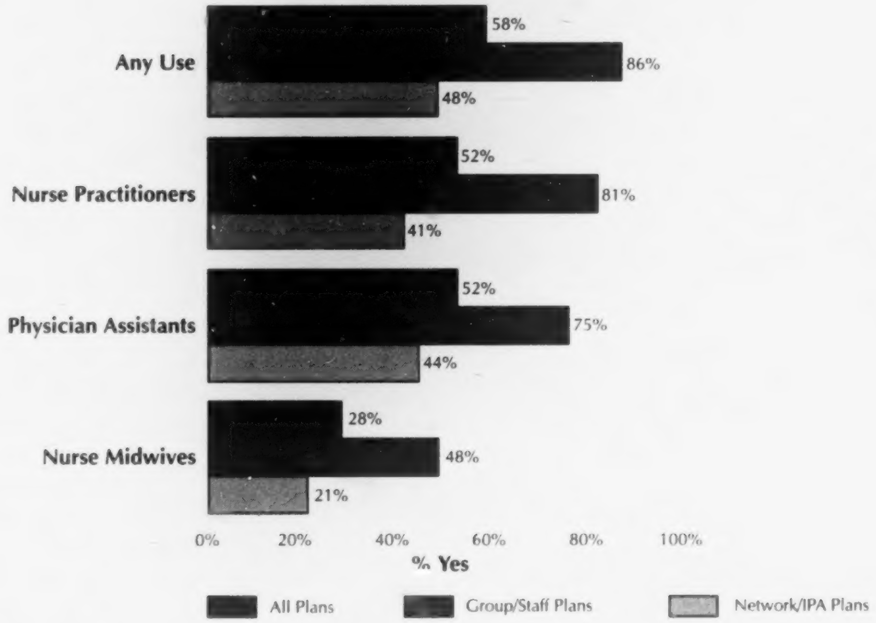
Full-time Physician Staffing per 1,000 Enrollees, Staff and Group Plans Over Three Years Old, by Size, 1990

	Full-time Physicians per 1,000 Enrollees	Percent (%) Full-time Physicians to Total Physicians
ALL PLANS > 3 YEARS	1.3	70%
Size		
0–19,999	1.6	58%
20,000–49,999	1.4	60%
50,000–99,999	1.2	67%
100,000+	1.1	85%

Source: GHAA's Annual HMO Industry Survey

Figure 2

Use of Nurse Practitioners, Physician Assistants, and Nurse Midwives, Plans Over Three Years Old, 1990



Source: GHAA's Annual HMO Industry Survey

plans used nurse midwives, 52% used nurse practitioners, and 52% used physician assistants.

Plans in the Pacific region were most likely to use non-physician providers: 75% used physician assistants, 88% used nurse practitioners, and 42% used nurse midwives. In comparison, only 39% of plans in the South Atlantic used physician assistants, 36% used nurse practitioners, and 33% used nurse midwives.

Structure of Medical Provider Networks

To provide a more detailed profile of the way HMOs structure their medical provider networks, this year's survey included a number of questions about these arrangements. The survey focused on two particular areas: the profile of types of practice settings in which HMO physicians are involved and how heavily their practice draws upon HMO enrollees; and the payment and incentive structures used to compensate primary care physicians.

Types of Provider Settings

Traditional HMO analysis has relied on a model type classification to describe how the medical provider network of plans is structured (see Chapter III). Although this form of analysis is useful to highlight broad differences in structure among plans in the industry, it has become increasingly limited as plans develop more complex provider networks. As noted in the 1989 edition of the *HMO Industry Profile:*

Current definitions do not appear to consider explicitly such important variables and influences on performance as the extent of physician commitment

Exhibit 5
Typical Structure of Medical Networks by Model Type, Plans Over Three Years Old, 1990[1]

	All Plans	Staff	Group	Network	IPA
A Single Large Multi-Specialty Group Practice	37%	74%	84%	42%	18%
Alone	15	60	42	7	1
With Other Arrangements	22	14	42	35	17
Solo Physicians or Partnership Only	29	5	3	12	45
Groups of 3–7 Physicians Only or with Solo and Partnerships	10	2	3	2	15
Other Types of Practice or Mixes	24	19	10	44	23
(Number of Plans)	(313)	(42)	(40)	(43)	(188)

Note:

1. Response to question, "Which of the following best describes the structure of the medical network in your plan used by most of your plan's enrollees?" Other choices not reflected above were: physicians groups of 16 or more; physician groups 8–15; a combination. Combinations were coded manually and are reflected above.

Source: GHAA's Annual HMO Industry Survey

to the plan in terms of share of practice, whether delivery is through a multispecialty group practice or not, and the type of contractual arrangement between the plan and the physicians.[12]

A better understanding of the structure of HMO provider networks is desirable and essential to assess the adequacy of current classification schemes and to determine whether improvements are desirable.

As an initial step in this analysis, this year's survey asked HMOs about the types of practices included in their medical networks. Specifically, each plan was asked to describe the structure of the medical network it used for most of its enrollees[13]. The following choices were offered: a single, large multispecialty group practice (either employed or under contract); physician groups of 16 or more; physician groups of 8 to 15; physician groups of 3 to 7; physicians practicing alone or in a partnership; or a combination of the above. Plans that chose a combination were asked to specify the combination of structures used; the answers were manually coded to assist in analysis. Exhibit 5 summarizes the typical medical structures used by HMOs by predominant model type. The data confirm broad differences in patterns by model type; they also show considerable variation within plans of the same model type. Reflecting their origins as prepaid group practices, about three- quarters or more of all staff and group model plans were based on large multispecialty group practices, either exclusively or in conjunction with other arrangements. Conversely, 45% of IPAs defined their typical medical provider network as solo physicians or partnerships; an additional 15% used small groups (3 to 7), either alone or with solo physicians or partnerships. The provider networks of network model HMOs exhibit more variability.

Predictably, HMOs of different model types also varied in the degree of association with their physicians. Exhibit 6 gives HMO estimates of the average percentage of their primary care physicians' practice who were enrollees of their plan. (The total percent-

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[12] *HMO Industry Profile, Volume 1: Benefits, Premiums, and Market Structure*, 1989 edition (Washington, D.C.: Group Health Association of America, Inc., 1989), p.7.

[13] The item emphasized the arrangement used for most enrollees to assist in clarifying the major differences across plans.

Exhibit 6
Percent of Primary Care Physicians' Practice Comprised of Enrollees from the HMO, by Model Type, Plans Over Three Years Old, 1990

	All Plans	Staff	Group	Network	IPA
% of Practice[1]					
0–30%	66%	20%	18%	67%	88%
0–10%	27	10	3	31	36
11–20%	26	5	11	19	37
21–30%	13	5	5	17	16
31–80%	15	17	21	28	10
81–100%	19	63	61	6	4
81–90%	2	3	11	0	1
90–99%	10	36	29	3	1
100%	7	23	21	3	2
(Number of Plans)	(269)	(39)	(38)	(36)	(156)

Note:
1. Response to item "On average, approximately what percentage of your primary care physicians' patients are enrollees of your HMO?"
Source: GHAA's Annual HMO Industry Survey

age of a physician's practice comprised of HMO patients could be higher than shown, if the physician was affiliated with more than one HMO.) Most IPAs or networks represented 30% or less of the practice of their primary care physicians; 36% of these HMOs said that their enrollees represented 10% or less of the average practice. In contrast, about three-fifths of the staff and group model plans said their enrollees represented 81% or more of their physicians practice; a fifth said their enrollees represented 100% of the practice. However, as with provider networks, there was variation within models as well as across models.

Payment Methods Used by HMOs

Capitated payments were the predominant method of paying primary care physicians in 56% of plans in 1990; 28% used fee-for-service payments and 15%, salaried arrangements (Exhibit 7). Salaried arrangements were most common in staff model plans—82% used this as their predominant method. Although original IPAs tended to pay physicians on a fee-for-service basis, 59% of plans in 1990 capitated their primary care physicians, and only 40% paid fee-for-service (1% of plans paid on a salary basis). Most physicians also assumed some risk for specialty services; this risk was most commonly shared among all physicians in the plan but also may have been assumed by individual physicians or by a subgroup, particularly in network and IPA model HMOs. Among those established plans using a subgroup to share the risk, 7% said that the typical size of the group was 5 individuals or fewer; 22% said 6 to 10 individuals; 49% said 11 to 49 individuals; and 22% said 50 or more individuals. Staff model plans were least likely to have their primary care physicians assume risk for specialty care services(77% of plans shared no risk), followed by group models (47% of plans shared no risk).

Previous efforts to identify physician payment methods have been complicated by the fact that some plans pay physicians through an intermediate entity (e.g., a physician group or IPA organization) and prior results often reflected payments to these entities rather than to individual physicians. In established plans, 68% paid their primary care physicians directly and 32% made payments to 3 or more physicians. For IPAs, the comparable percentages were 85% and 15%. Physician payment questions in the GHAA Annual HMO Industry Survey were specifically worded to request information on the ultimate method used to pay *individual* physicians. Although the wording was more precise than in the past, some confusion may still exist and could contribute to an overestimate of the extent of capitated payments.

Exhibit 7
Predominant Method of Payment and Risk Sharing in HMOs by Model Type, Plans Over Three Years Old, 1990

	% of Plans				
	All Plans	**Staff**	**Group**	**Network**	**IPA**
Payment Method[1]					
Salary	15%	82%	34%	0%	1%
Capitation	56	11	66	81	59
Fee-for-Service	28	7	0	19	40
(Number of Plans)	(319)	(42)	(41)	(44)	(192)
Risk For Speciality Care[2]					
None	33%	77%	47%	20%	23%
Shared by all HMO Physicians	36	12	38	25	42
Shared by Physician Subgroup	17	5	11	32	18
Assumed by Individual Subgroup	14	7	4	23	17
(Number of Plans)	(338)	(43)	(55)	(44)	(196)

Notes:

1. Response to item, "What is the *predominant* method used by your HMO to pay *individual* physicians for primary care services (regardless of whether these payments are made directly to physicians or through an intermediary)?"
2. Response to item, "With whom do *individual* primary care physicians share the financial risk for deficits or surpluses associated with *speciality care*, whether this is through capitated payments, bonuses, or withhold arrangements?"

Source: GHAA's Annual HMO Industry Survey

V. OVERVIEW OF UTILIZATION PATTERNS

This chapter provides an overview of HMO utilization statistics for the industry. As health care costs have risen, effective management of patient care has continued to be of interest to those in the HMO industry as well as to employer and regulatory groups. Several studies have shown that HMOs have lower hospitalization rates than do fee-for-service practices and that the quality of care delivered is as good or better.[14]

As the HMO industry has changed, interest in comparative utilization data has grown. The next three chapters of this report address the need for comparative utilization data by providing statistics by plan characteristics, allowing comparisons to be made among plans of different types and providing industry averages for comparison with the experience of individual plans.

This section provides an overview of average utilization rates for plans responding in 1989. Inpatient measures of utilization are given in terms of discharges per 1,000 members (enrollees), inpatient days per 1,000 members, and average length of stay.[15] For outpatient utilization, total ambulatory encounters per member per year and physician encounters per member per year are used (see Tables 4 to 9).

Because plan utilization statistic[illegible] not adjust for age differences in the enrollee population across responding plans, they can be misleading. The elderly have substantially higher utilization rates; thus, statistics are reported separately for enrollees under 65 and for enrollees 65 and over.[16] Unfortunately, not all plans can report this breakdown, and some plans have few elderly enrollees. As a result, the utilization data for all ages, while less interpretable, are available for more plans and provide statistics that are more generalizable estimates of overall utilization levels. Unless otherwise noted, statistics refer to established plans (plans over 3 years old)

Average Utilization Rates for Plans Operational for Over 3 Years

Figure 3 provides a summary of the mean utilization rates by enrollee age for established plans. In total, HMOs provided 405 days of inpatient care per 1,000 enrollees, with an average length of stay of 4.6 days and a discharge rate of 87.5 per 1,000 enrollees (see Tables 4 and 5). On average, an HMO provided 5.0 total encounters per member per year, including 4.0 physician encounters. On average, 81% of an HMO's encounters were physician encounters (see Tables 6 to 9).

For the under-65 population, the average plan provided 354 days of inpatient care per 1,000 enrollees, with an average length of stay of 4.3 days and a discharge rate of 81.7 per 1,000 enrollees (see Table 4). There were an average of 4.9 total ambulatory encounters per member per year and 3.9 physician encounters per member per year (see Table 6). On average, 81% of all encounters for enrollees under 65 were physician encounters.

The utilization rates for elderly HMO enrollees

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[14] For a review of research concerning utilization and quality of care in HMOs, see, for example, Harold S. Luft, *Health Maintenance Organizations: Dimensions of Performance* (New York: John Wiley and Sons, 1981); William Manning et al., "A Controlled Trial of the Effect of a Prepaid Group Practice on Use of Services," *New England Journal of Medicine* 310 (June 7, 1984):1505-1510; John E. Ware et al., "Comparison of Health Outcomes at a Health Maintenance Organization with Those of Fee-for-Service Care," *Lancet* (May 3, 1986):1017-1022; E.M. Sloss et al., "Effect of a Health Maintenance Organization on Physiologic Health: Results from a Randomized Trial," *Annals of Internal Medicine* 106 (1987):130-138; Albert L. Siu et al., "Use of the Hospital in a Randomized Trial of Prepaid Care," *Journal of the American Medical Association* 259 (March 4, 1988):1343-1346; and K.M. Langwell and J. Hadley, *National Evaluation of the Medicare Competition Demonstrations, Summary Report*, prepared for the Department of Health and Human Services, HCFA, contract No. 500-83-0047 (Mathematica Policy Research, January 1989). For a review of historical research on the quality of care in HMOs, see Frances C. Cunningham and John W. Williamson, "How Does Quality of Health Care in HMOs Compare to That in Other Settings: An Analytical Literature Review: 1958 to 1979," *The Group Health Journal* 1 (Winter, 1980):4-25.

[15] In this report, discharge rates per 1,000 enrollees were calculated by dividing the reported inpatient days per 1,000 enrollees by the average length of stay in the plan. HMOs that could not report both utilization variables for the particular enrollment group of the statistics (for example, the population under 65) were excluded from the calculation of the statistic for that group.

[16] The utilization rates shown in the figures (and supporting tables) are based on a different number of plans for each age group, with a larger number of plans reporting total utilization rates than age-specific utilization rates. More plans also reported utilization for the under-65 population than for the elderly. While the data would be more comparable if the figures and tables were restricted to plans reporting all three sets of data (or two in the case of plans without enrollment of the elderly), this comparison was not made because it would have reduced considerably the total number of responding plans included.

Figure 3
Selected Utilization Rates by Enrollee Age, Plans Over Three Years Old, 1989

Figure 3a
Mean Days Per 1,000 Enrollees, by Age

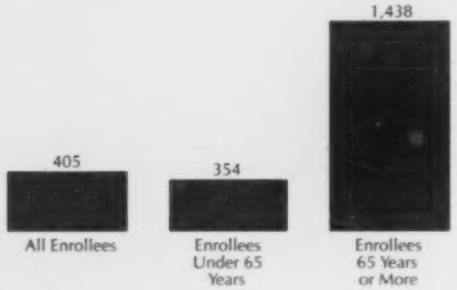


Figure 3b
Mean Discharges Per 1,000 Enrollees, by Age

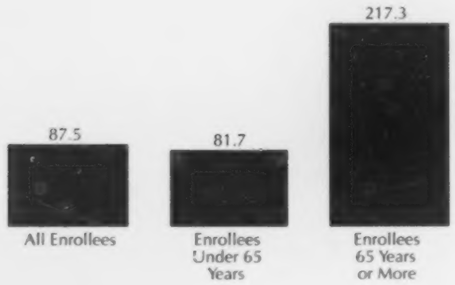


Figure 3c
Mean Inpatient Length of Stay by Age

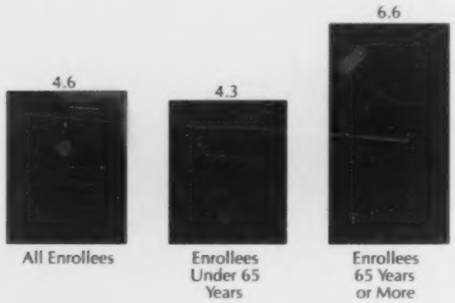


Figure 3d
Mean Total Encounters Per Member Per Year, by Age

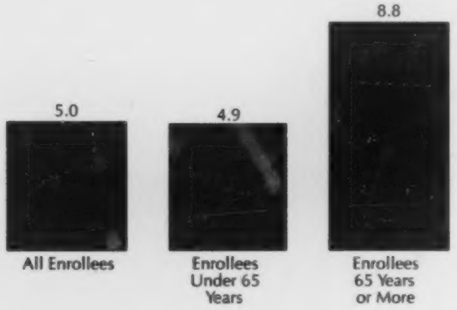
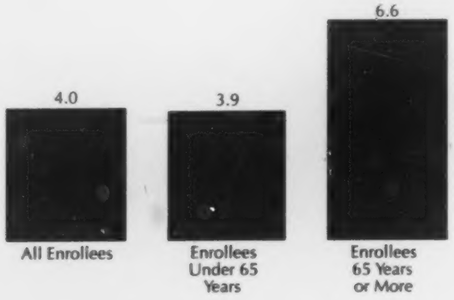


Figure 3e
Mean Physician Encounters Per Member Per Year, by Age



are considerably higher than those for the under-65 population. For elderly enrollees, the average plan provides 1,438 days of inpatient care per 1,000 enrollees, with an average length of stay of 6.6 days and a discharge rate of 217.3 per 1,000 enrollees (see Table 4). There were an average of 8.8 total ambulatory encounters per member per year and 6.6 physician encounters per member per year (see Table 6). On average, physician encounters were 80% of total encounters for elderly enrollees.

Weighted HMO Utilization Compared with the National Average

Figure 4 compares weighted average utilization rates and weighted average physician encounters in established HMOs with those reported for the entire United States. This the first time HMO rates have been weighted by HMO enrollment instead of by plan, providing a more direct comparison to national data that reflect the population as a whole. National data are based on inpatient utilization statistics derived from the National Hospital Discharge Survey for 1989.[17] Using weighted enrollment figures yields a lower estimate of the national HMO utilization experience than the plan average, because larger plans have lower rates.

On average, use of services by HMO enrollees is considerably below that of the population as a whole, both for those under 65 and for the elderly. For the under-65 population, the national average of inpatient days per 1,000 enrollees is 60% higher than that of established HMOs. This difference in utilization reflects a national discharge rate that is approximately 30% higher and a length of stay that is 21% higher than the HMO rates. The differences probably represent the combined effect of HMO practice styles and variations in the populations included in the two sets of rates.[18]

A companion of the number of physician encounters per person per year for the U.S. population with the weighted average of physician encounters per member per year in established HMOs shows the same pattern as the comparison of inpatient utilization, but the differences are less marked. For the under-65 population, the national average of physician encounters per person per year was 22% higher in 1989 than the HMO average. For the elderly, the national average of encounters per person per year was 14% higher.[19] HMOs probably are more likely to use non-physician personnel than fee-for-service providers, although complete national comparative data for assessment is lacking. Patient-mix differences also could explain differences in physician encounter rates between the fee-for-service and HMO systems.

To make a direct comparison of the trends in national and HMO utilization rates, weighted averages for 1987, 1988, and 1989 measures were computed for inpatient and outpatient utilization. Exhibit 8 shows the results of that comparison. The difference between the U.S. population and HMO enrollees for hospital days per 1,000 has narrowed as HMO rates remain steady and utilization rates in the nation as a whole come down (Figure 5). This downward trend in national rates is clear, but may be overstated because of changes in the *National Hospital Discharge Survey* between 1987 and 1988. The overall downward trend in the national rates, when previous years are considered, is clear.

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[17] For national inpatient use data, see Table 73 in *Health United States, 1990*, Department of Health and Human Services Publication (PHS) 91-1232 (Hyattsville, Md., March 1991). Estimation techniques were needed to derive statistics for the under-65 population, as these were only reported in more specific age groups. An aggregate under-65 rate was developed by weighting the age-specific utilization rates according to the proportion of the estimated U.S. population in each age group as reported in Table 18 of the *Statistical Abstract of the United States, 1990*, 110th edition, p. 16. Utilization data are for 1989; the age weights were population estimates for 1989. Use of the estimates for 1989 should not introduce any meaningful amount of error. The data source for population statistics is the U.S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 1018. The National Hospital Discharge Survey (NHDS) conducted by the National Center for Health Statistics is the source for the utilization information. Differences in national utilization statistics for previous years compared to 1988 and 1989 may be caused by a change in the design of the NHDS rather than true changes in hospital use.

[18] As noted previously (see note 14), research indicates that HMOs have lower hospital utilization rates than do fee-for-service practices, particularly in admissions. Because of the nature of HMO enrollment, the HMO population differs from the profile for the U.S. population; similar differences exist for commercially insured populations. HMOs disproportionately serve employed populations and their dependents and noninstitutionalized populations. These differences contribute to the variation between HMO utilization rates and those of the nation as a whole.

[19] The national comparison is based on data from the National Health Interview Survey for 1989. This survey represents a stratified random sample of the noninstitutionalized U.S. population. See Table 67 in *Health United States, 1990* (see note 17 for full reference). This survey shows physician visits by source of care and age. After removing telephone visits (so that the result would be more comparable to an encounter measure), the same adjustments were made to aggregate age groups as noted in footnote 17.

Figure 4
Hospital Days, Discharges, Length of Stay, and Physician Encounters by Age, HMOs (weighted) versus National Average, 1989

Figure 4a
Hospital Days Per 1,000 by Age

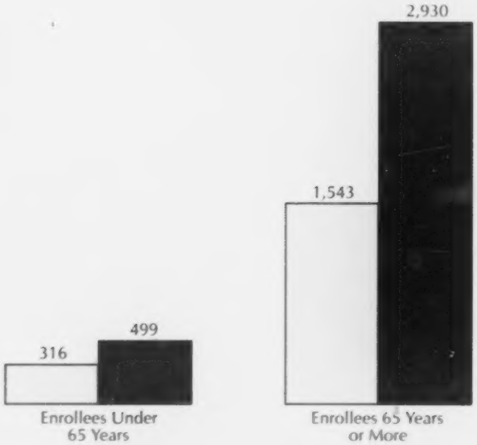


Figure 4b
Hospital Discharges Per 1,000 by Age

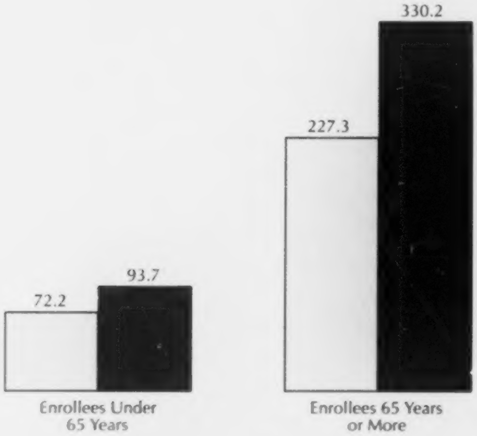


Figure 4c
Hospital Length of Stay by Age

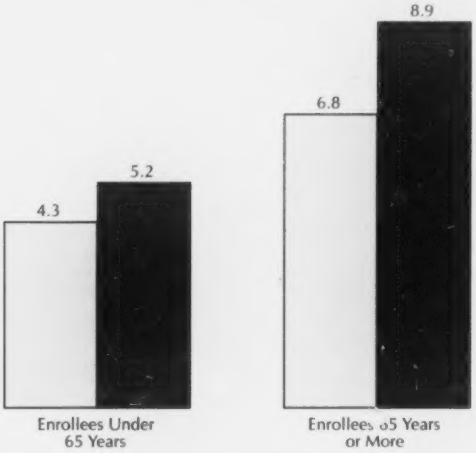
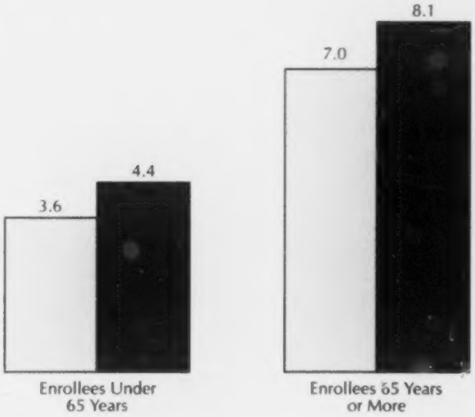


Figure 4d
Physician Encounters Per Person Per Year



☐ HMOs Over 3 Years Old ■ National Average

Source: GHAA's Annual HMO Industry Survey, National Hospital Discharge Survey, National Health Interview Survey

Exhibit 8
Trends in Hospital Days, Discharges, and Length of Stay, HMOs (weighted) versus National Average 1987–1989.

	1987		1988		1989	
	HMOS	**National**	**HMOs**	**National**	**HMOs**	**National**
Days per 1,000						
Enrollees < 65	314	588	317	519	316	499
Enrollees ≥ 65	1633	3030	1481	2970	1545	2930
All enrollees	398	809	409	755	389	732
Discharges per 1,000						
Enrollees < 65	70.5	108.3	71.1	95.6	72.2	93.7
Enrollees ≥ 65	232.3	350	225.6	334	227.3	330
All Enrollees	81.9	127.9	84.2	117.8	81.8	115.5
Length of Stay						
Enrollees < 65	4.5	5.2	4.5	5.2	4.3	5.2
Enrollees ≥ 65	7.1	8.6	6.5	8.9	6.8	8.9
All Enrollees	4.9	6.3	4.9	6.4	4.7	6.3
Physician Encounters						
Enrollees < 65	–	4.3	3.6	4.3	3.6	4.4
Enrollees ≥ 65	–	8.0	6.7	7.8	7.0	8.1
All Enrollees	–	4.7	3.9	4.6	3.8	4.7

Source: GHAA's Annual HMO Industry Survey

Historically, research shows that HMOs have achieved a considerable portion of their savings based on control of inpatient utilization. HMOs continue to maintain their advantage in managing inpatient utilization, but it has diminished slightly in recent years. HMOs are likely to have to rely more heavily on other areas in which they are successful such as ambulatory care and overall delivery systems to maintain their advantage in the years ahead.

Average Utilization Rates for Plans Operational for 3 Years or Less

For the under-65 population, average length of stay and discharge rates per 1,000 enrollees for new plans were significantly higher on the average than those for established HMOs. There was no significant difference between the values reported for new and established plans for inpatient utilization by elderly enrollees. For all enrollees, the average length of stay was significantly less for new plans than for established plans. For enrollees under 65, total encounters and physician encounters per member per year were significantly greater for new HMOs than for established HMOs. For all enrollees, physician encounters per member per year were significantly greater for new plans than for established plans (see Tables 4 and 6).[20]

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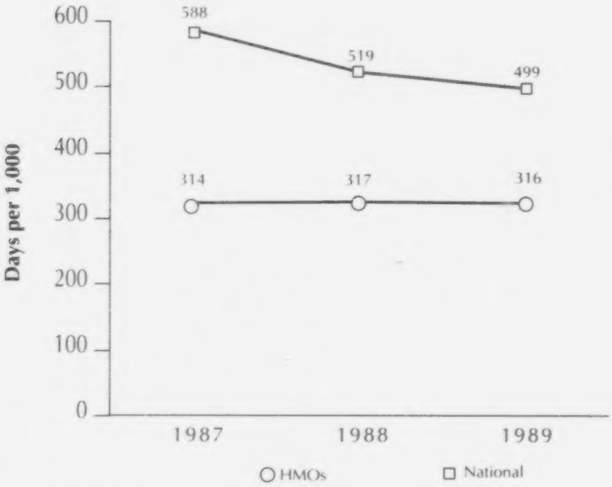
[20] To assess the statistical significance of the differences in utilization rates by plan age, t-tests were computed. Significant differences were noted at the 0.05 level or better unless otherwise noted. This means that in only 5 or fewer times out of 100 is it likely that the differences in means between new and established plans would have occurred by chance. For the under-65 population, higher discharges per 1,000 enrollees for new plans compared with established plans had a 0.05 probability of occurring by chance. Longer length of stay for new plans compared with established plans had a 0.000 probability of occurring by chance. Higher total encounters per member per year for new plans than for older plans had a probability of 0.017 of occurring by chance. Higher physician encounters per member per year had a probability of 0.05 of occurring by chance. For the elderly, no significant difference was found for inpatient utilization measures between new and established plans. For all enrollees, longer length of stay for established plans compared with new plans had a probability of 0.02 of occurring by chance. Higher physician encounters per member per year for new plans compared with established plans had a probability of 0.04 of occurring by chance.

Figure 5
Trends in Hospital Days per 1,000 Enrollees, HMOs* (weighted) versus the National Average, Persons Under 65, 1987-1989



* Plans over 3 years old.
Source: GHAA's Annual HMO Industry Survey

For the under-65 population, the average new plan provided 360 days of inpatient care per 1,000 enrollees, with an average length of stay of 4.4 days and a discharge rate of 83.2 per 1,000 enrollees. For elderly enrollees, new plans provided 1,583 days of inpatient care per 1,000 enrollees, with an average length of stay of 6.7 days and a discharge rate of 242.1 per 1,000 enrollees (see Figure 6). Compared with established plans, new plans had higher utilization rates for both the under-65 population and the elderly.

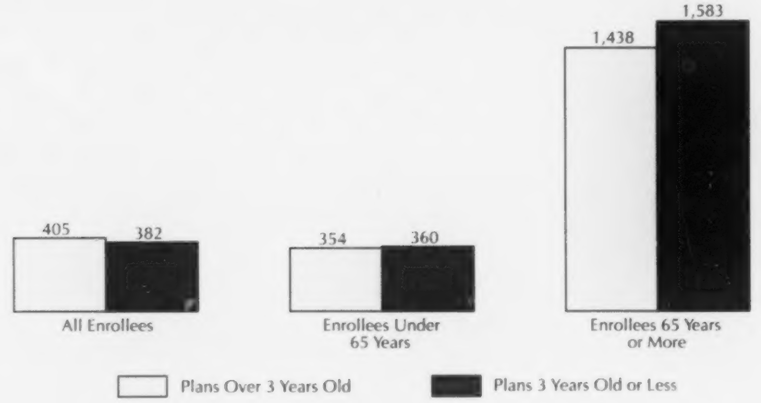
The mean number of total encounters per member per year was higher in new plans than in established plans (Figure 7). For the under-65 population, new plans provided 5.2 total encounters per member per year; established plans provided 4.9. For the elderly population, new plans provided an average of 9.1 total encounters per member per year compared with 8.8 for established plans.

The mean number of physician encounters per member per year was also higher in new plans than in established plans. New plans provided 4.1 physician encounters per member per year on average for the under-65 population and 7.2 for the elderly. In comparison, established plans provided 3.9 physician encounters per member per year for the under-65 population and 6.6 for the elderly.

Trends in Utilization

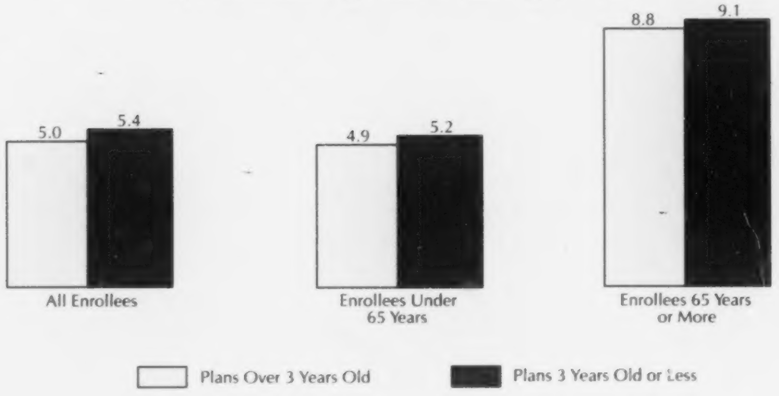
Exhibit 9 provides an overview of utilization, as reported by GHAA, for the years 1985 to 1989. It includes use rates for all plans reporting each year, regardless of plan type, and rates for established plans for the 1986 to 1989 time period. These values are presented largely for illustrative purposes. Because the responding plans and the treatment of extreme values have differed over the years, they should be considered cautiously; differences in the population of plans reporting affect the averages considerably. For example, examination of Exhibit 9 could lead to the conclusion that discharges per 1,000 enrollees and days per 1,000 enrollees are declining

Figure 6
Mean Inpatient Days Per 1,000 Enrollees by Enrollee Age and Plan Age, 1989



Source: GHAA's Annual HMO Industry Survey

Figure 7
Mean Total Encounters Per Member Per Year by Enrollee Age and Plan Age, 1989



Source: GHAA's Annual HMO Industry Survey

Exhibit 9
Summary of Utilization Measures 1985–1989, by Enrollee Age

	All Plans					Plans > 3 Years Old			
	1985	**1986**	**1987[1]**	**1988[1]**	**1989[1]**	**1986**	**1987[1]**	**1988[1]**	**1989**
Discharges/1,000									
All Enrollees	95	92	90	92	87	92	90	92	88
Enrollees < 65	84	85	82	82	82	82	81	81	82
Enrollees ≥ 65	253	253	239	228	219	262	248	232	217
Days/1,000									
All Enrollees	456	440	417	433	402	452	428	438	405
Enrollees < 65	372	375	356	362	355	351	352	358	354
Enrollees ≥ 65	1,843	1,710	1,641	1,553	1,448	1,835	1,690	1,582	1,438
LOS									
All Enrollees	4.9	4.8	4.7	4.7	4.6	4.9	4.7	4.8	4.6
Enrollees < 65	4.5	4.5	4.4	4.4	4.3	4.4	4.4	4.4	4.3
Enrollees ≥ 65	7.1	6.9	7.0	6.7	6.6	7.1	7.0	6.7	6.6
Encounters/Members/Year									
All Enrollees	4.1	4.7	4.9	5.0	5.1	4.8	5.0	5.1	5.0
Enrollees < 65	3.9	4.3	4.7	4.9	4.9	4.4	4.8	5.1	4.9
Enrollees ≥ 65	7.4	8.3	9.0	8.9	8.8	9.1	9.1	9.5	8.8

Note:

1. Data were trimmed for 1986, 1987, 1988 and 1989. Values greater than three standard deviations from the mean or values less than a minimum threshold were excluded. The threshold for discharges/1,000, days/1,000, LOS, and encounters/member/year were five, fifty, one and one, respectively.

Source: GHAA's Annual HMO Industry Survey

for the elderly population. Additionally, the number of encounters per member per year seems to increase for both the under-65 and elderly populations.

To provide a more consistent means of evaluation, a year-to-year comparison of plans providing data for at least 2 years is presented in Exhibit 10. The utilization experience of only those plans reporting for both 1986 and 1987, 1987 and 1988, and 1988 and 1989 is compared using consistent statistical assessment rules. For this purpose, the analysis includes all plans responding in the 2-year period, rather than restricting analysis to established plans. This analysis shows no obvious trends in inpatient utilization for the 1986-1987, 1987-1988, or 1988-1989 periods.[21] The decline observed in the cross-sectional results shown in Exhibit 8 is mostlikely due to variations in the population of responding plans or to data definitions.

As previously reported, the number of encounters per member per year appears to have increased between 1986 and 1987 for both age groups.[22] This observation was supported by prior findings for the 1985-1986 period.[23] This significant increase in encounters did not continue in the more recent 1987 to 1989 period.

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[21] For each of the periods (1986-1987, 1987-1988, and 1988-1989), the significance of the difference of the means was tested using a paired *t*-test. With the exception of average length of stay for all enrollees for the 1988-1989 period, the changes in days per 1,000 enrollees, discharges per 1,000 enrollees, or average length of stay for the elderly, under-65, or total enrollee populations were not significant at the 0.05 level. The minor decrease in the average length of stay from 4.7 in 1988 to 4.6 in 1989 was significant (p=0.05).

[22] This observation was reported in previous analysis in *HMO Industry Profile, Volume 2: Utilization Patterns, 1987*, 1989 edition (Washington, D.C.: Group Health Association of America, 1988), p. 14-15. On the basis of the paired *t*-test, the 1986 to 1987 increases in encounters per member per year of the under-65 group and all enrollees had a probability of occurring by chance of 0.03 and 0.02, respectively. Encounters per member per year for the elderly had a probability of occurring by chance of 0.08 (near significant)..

[23] See *HMO Industry Profile, Trends 1985-1986*, 1988 edition (Washington, D.C.: Group Health Association of America, 1988),p. 15-16.

Exhibit 10

Summary of Utilization Measures 1986–1987, 1987–1988, and 1988–1989, Plans Reporting Consecutive Years, by Enrollee Age[1]

A. Plans Reporting in Both 1986 and 1987

	All Enrollees		Enrollees < 65		Enrollees ≥ 65	
	1986	**1987**	**1986**	**1987**	**1986**	**1987**
Discharges/1,000	88.0	90.7	80.8	80.7	243.9	263.8
(N)	(110)		(82)		(53)	
Days/1,000	418	423	346	349	1,668	1,750
(N)	(118)		(85)		(57)	
LOS	4.7	4.8	4.4	4.4	6.8	7.1
(N)	(112)		(81)		(55)	
Encounters/Member/Year[2]	4.7	5.1	4.5	5.3	8.5	9.7
(N)	(92)		(52)		(44)	

B. Plans Reporting in Both 1987 and 1988

	All Enrollees		Enrollees < 65		Enrollees ≥ 65	
	1987	**1988**	**1987**	**1988**	**1987**	**1988**
Discharges/1,000	90.7	88.5	81.2	79.5	237.9	241.1
(N)	(158)		(103)		(79)	
Days/1,000	422	423	350	347	1,666	1,650
(N)	(169)		(106)		(81)	
LOS	4.7	4.7	4.5	4.4	7.1	6.9
(N)	(160)		(105)		(81)	
Encounters/Member/Year	4.9	4.9	5.0	4.8	9.6	9.6
(N)	(127)		(74)		(64)	

C. Plans Reporting in Both 1988 and 1989

	All Enrollees		Enrollees < 65		Enrollees ≥ 65	
	1988	**1989**	**1988**	**1989**	**1988**	**1989**
Discharges/1,000	89.9	88.5	81.7	81.5	87.2	79.5
(N)	(206)		(114)		(89)	
Days/1,000	421	412	355	351	1,519	1,542
(N)	(219)		(121)		(97)	
LOS[3]	4.7	4.6	4.4	4.3	6.7	6.7
(N)	(215)		(118)		(91)	
Encounters/Member/Year	4.9	5.1	4.8	4.9	8.4	8.8
(N)	(158)		(93)		(80)	

Notes:

1. Data were trimmed for 1986, 1987, 1988 and 1989. Values greater than three standard deviations from the mean or values less than a minimum threshold were excluded from analysis. The threshold for discharges/1,000 days/1,000 LOS and encounters/member/year were five, fifty, and one, respectively.
2. Between year differences for encounters/member/year were significant at 0.05 level for the under 65 and all enrollee populations.
3. Between year differences for LOS were significant at 0.05 level for the all enrollees population.

Source: GHAA's Annual HMO Industry Survey

VI. UTILIZATION RATES BY PLAN CHARACTERISTICS

This chapter reviews the differences in utilization rates for established plans by model type, region, size, and plan age. Discussion focuses on how rates vary for each of these plan characteristics and any statistically significant differences.[24] Results are for established plans. Tables 5, 7, 8, and 9 provide utilization statistics by plan characteristics for all plans and for established plans. The tables provide only summary statistics for new plans.

Inpatient Utilization

For the under-65 population, inpatient utilization rates in plans varied by model type, region, size, and plan age (Figure 8). (See Table 5 for detailed statistics on utilization rates by plan characteristics.) Differences in inpatient days per 1,000 enrollees were statistically significant by model type and region. Differences in discharges per 1,000 enrollees were statistically significant for model type, plan size, and region. Differences in average length of stay were statistically significant for plan age and region.[25]

For the elderly, inpatient utilization rates varied by region, plan size, and plan age. Differences in discharges per 1,000 for the elderly population were statistically significant by region and plan size. Differences in days per 1,000 were statistically significant by region, plan size, and plan age. Differences in average length of stay were significant by region, plan size, and plan age. Differences in both days per 1,000 and discharges per 1,000 were near significant by model type.[26] The findings for each of the plan characteristics and any significant differences between groups are discussed in detail below.

Variation by Model Type

For the under-65 population, discharges per 1,000 enrollees for IPA model plans (87.3 discharges per 1,000) were significantly higher than those reported for the staff, group, and network model plans (74.0, 75.2, and 75.1, respectively).[27] Differences in days per 1,000 by model type were not significant.

For the elderly, days per 1,000 enrollees for staff model plans (1681 days per 1,000) were significantly higher than those reported by the network model plans (1,092). No significant differences were detected between any of the other group combinations.[28] Neither discharges per 1,000 nor average

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[24] Statistical significance for this section was assessed by the *F*-value based on a one-way analysis of variance. Significance refers to a 0.05 level or better. Statistical significance indicates only that there were statistically significant differences among the means for the variable across the groups. The *F*-test would indicate, for example, whether model type has a statistically significant effect on utilization, but not which rates for particular models differed from each other. To provide some information on this latter point, multiple comparison tests (Tukey's at the 0.05 level) were performed. Differences close to meeting the 0.05 significance test are pointed out because the relatively small number of plans considered here can contribute significantly to variability. In this situation, differences close to significant are useful to note.

[25] Differences in days per 1,000 for enrollees under 65 by model type and by region were significant. The *F*-value of model type had a probability of 0.0451 of occurring. The *F*-value for days per 1,000 by region had a probability of 0.0000. Differences in discharges per 1,000 for enrollees under 65 were significant for model type, region, and plan size. The *F*-value for under-65 population discharges per 1,000 enrollees by model type had a probability of 0.0002. The *F*-value for under-65 population discharges per 1,000 enrollees by region had a probability of 0.0000. The *F*-value for the under-65 population discharges per 1,000 enrollees by plan size is 0.0193. Differences in average length of stay varied significantly by region and plan age. The *F*-value for average length of stay in the under-65 population by region had a probability of 0.0000 of occurring by chance. The *F*-value for average length of stay in the under-65 population for plan size had a probability of 0.0019 of occurring by chance. All groups mentioned above with significant *F*-values showed significant between-group differences using the Tukey comparison test except days per 1,000 for the under-65 age group. Additionally, for the under-65 population, the *F*-values for differences across model types for average length of stay were near significant at 0.09.

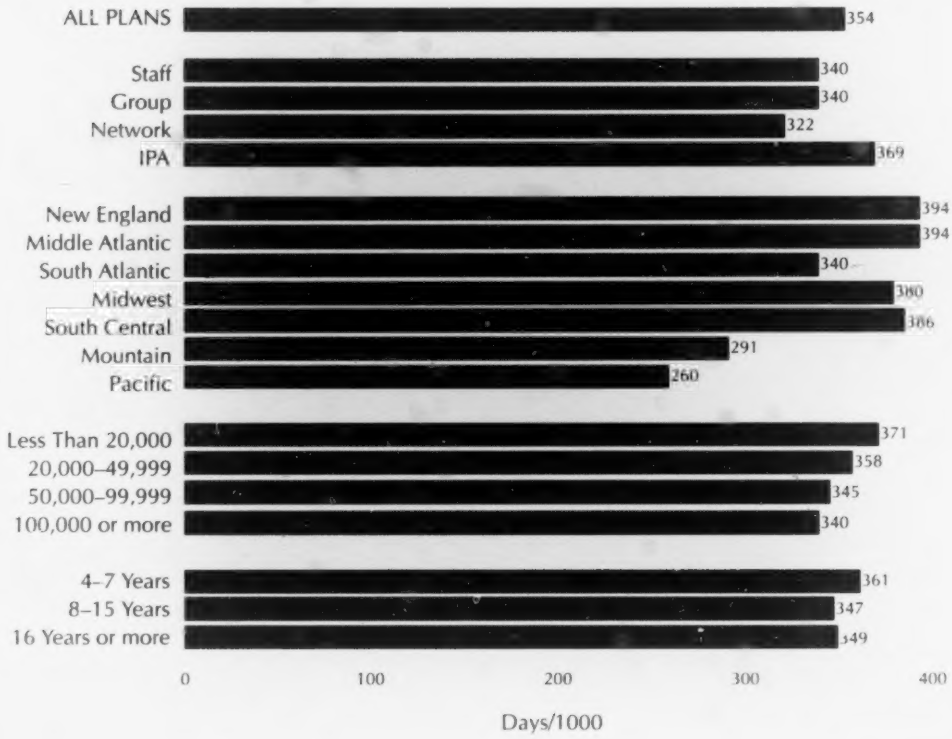
[26] Differences in discharges per 1,000 for the elderly were significant by region and plan size. The *F*-value for differences in discharges per 1,000 for the elderly by region was 0.0211; for plan size the *F*-value was 0.0000. Differences in days per 1,000 for the elderly were significant by region, plan size, and plan age. The *F*-value for differences in days per 1,000 for the elderly by region was 0.0003; for plan size the *F*-value was 0.0000; for plan age the *F*-value was 0.0251. Differences in average length of stay for the elderly were significant by region, plan size, and plan age. The *F* value for differences in average length of stay for the elderly by region was 0.0002; for plan size the *F*-value was 0.0001; for plan age the *F*-value was 0.0319. Differences in discharges per 1,000 and days per 1,000 enrollees for the elderly by model type had borderline significance (p=0.554 and p=0.559).

[27] Using the Tukey comparison test of the population of enrollees under 65, discharges per 1,000 were found to be significantly higher for IPAs than for staff, group, and network model plans.

[28] Using the Tukey comparison test for the population of elderly enrollees, inpatient days per 1,000 for staff model plans were significantly higher than those for network model plans.

Figure 8

Mean Inpatient Days Per 1,000 Enrollees Under Age 65, by Plan Characteristics, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

length of stay were significantly different among groups for the elderly population.

These findings differ from our findings for 1988, when none of the inpatient utilization measures were found to differ significantly between model types for either the under-65 or elderly populations. However, the findings are consistent with GHAA findings for 1987.[29]

Variation by Region

For the under-65 population and for the elderly, inpatient days per 1,000 enrollees, discharges per 1,000 enrollees, and average length of stay varied significantly according to region.

The lowest inpatient days per 1,000 rates for the under-65 population were reported by HMOs in the Mountain and Pacific regions. In ascending order, the mean days per 1,000 for the regions were Pacific, 260; Mountain, 291; South Atlantic, 340; Midwest, 380; South Central, 386; New England, 394; and the Middle Atlantic, 394.[30] Differences in inpatient days per 1,000 enrollees across regions appear to be mainly attributable to differences in the average length of stay.

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[29] For 1988 utilization data see *HMO Industry Profile, Volume 2: Utilization Patterns*, 1990 edition (Washington, D.C.: Group Health Association of America, Inc., 1990). For 1987 utilization data see *HMO Industry Profile, Volume 2: Utilization Patterns*, 1989 edition (Washington, D.C.: Group Health Association of America, Inc., 1989).

[30] Using the Tukey comparison test, days per 1,000 rates for HMO enrollees under 65 in the Middle Atlantic, New England, South Central, and Midwest regions were significantly greater than those reported for the Mountain and Pacific regions. Additionally, the days per 1,000 rate for HMOs in the South Atlantic region was significantly higher than the rate for the Mountain region.

For the under-65 population, average length of stay in the Mountain and Pacific regions was 3.9 and 4.0 days, respectively, compared with 4.3 days for all established plans. The highest average length of stay was reported by the New England region (5.0 days). The Pacific region also had a lower average discharge rate per 1,000 enrollees: the average plan discharge rate per 1,000 was 65.9 per 1,000 enrollees, versus 81.7 per 1,000 enrollees for all established HMOs.[31]

For the elderly population, the South Central and Pacific regions reported mean inpatient days per 1,000 enrollees, discharges per 1,000 enrollees, and average length of stay. As with the under-65 population, average days per 1,000, length of stay, and discharges per 1,000 varied by region.[32]

These results are consistent with utilization statistics for the entire U.S. population, which show lower hospital use in the West and Midwest regions. The highest utilization for the U.S. population is in the Northeast.[33]

Variation by Plan Size

Generally, larger plans had lower rates of inpatient utilization than did smaller plans for the under-65 population. Inpatient days per 1,000 and discharges per 1,000 enrollees decreased with increasing plan size. The lowest average for days per 1,000 (340) was reported by plans in the 100,000 size category. The lowest average number of discharges per 1,000 (77.1) was reported by plans in the 50,000 to 99,999 category. However, for length of stay, the opposite pattern exists, with reported values generally higher for larger plans. Plans in the 0 to 19,999 size category reported the lowest average length of stay (4.2). The differences in discharge rates between plan size categories were significant.[34]

Unlike the same measures for the under-65 population, inpatient utilization for the elderly was higher for large plans compared with small plans. Days per 1,000, discharges per 1,000, and average length of stay for the elderly increased with plan size. It is possible that the relation of plan size and inpatient utilization could be influenced by the tendency of larger (and usually older) plans to have a larger proportion of older patients who make greater use of inpatient resources.[35] This relationship cannot be directly inferred from GHAA data; however, the available data show that older plans have a higher proportion of the 45+ (and 65+) population. Larger plans also tend to be older, and one might speculate that enrollees have stayed in the plan as they have grown older.

Variation by Plan Age

As reported in previous editions of GHAA's Profile, utilization relates differently to plan age for the under-65 population than for the elderly. Overall, utilization for the elderly is lower in younger plans than older plans. Conversely, utilization for the under-65 population is lower in older plans.

For the under-65 population, length of stay was significantly different by plan age.[36] Average length of stay for plans with 16 or more years of experience was 4.6 days, which is greater than the length of stay

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[31] Using the Tukey comparison test average length of stay (ALOS) for the under-65 population in the New England, Middle Atlantic, and South Atlantic regions was significantly higher than ALOS for the Mountain and Pacific regions. Average length of stay in the South Central region was significantly greater than ALOS in the Mountain region. ALOS in the New England region was significantly greater than ALOS in the Midwest region. Discharges per 1,000 for the under-65 population in the Midwest, South Central, and Middle Atlantic regions were significantly greater than discharges per 1,000 for the Pacific region, using the Tukey comparison test. Discharges per 1,000 for the under-65 population in the Midwest were also significantly greater than for the Mountain and the South Atlantic regions.

[32] Using the Tukey comparison test, the days per 1,000 rate for the elderly in the New England region was significantly higher than in the South Central, Pacific, Mountain, and South Atlantic regions. Length of stay in New England was significantly higher than for the Pacific, South Central, Mountain, Midwest, and South Atlantic regions. Discharges per 1,000 in the Midwest were significantly greater than discharge for the South Central region.

[33] See, for example, Table 73 in *Health United States, 1990*, Department of Health and Human Services Publication (PHS) 91-1232 (Hyattsville, Md., March 1991). Data for 1989 from the *National Hospital Discharge Survey* were as follows: Northeast, 125.1 days per 1,000; Midwest, 116.8 days per 1,000; South, 119.0 days per 1,000; West, 98.3 days per 1,000.

[34] Using the Tukey comparison test for the population of enrollees under 65, discharges per 1,000 enrollees were found to be significantly higher for the 0 to 19,999 plan size category than for the 50,0000 to 99,999 and 100,000+ categories.

[35] Using the Tukey comparison test, larger plans (100,000+enrollees) had significantly greater values for days per 1,000, discharges per 1,000, and average length of stay for the elderly compared with the 20,000 to 49,999 size category. Larger plans also had significantly greater values for days per 1,000 and average length of stay compared with the smallest plan grouping (0 to 19,999). Days per 1,000 and average length of stay were significantly greater for plans in the 50,000 to 99,999 size category compared with both the 0 to 19,999 and 20,000 to 49,999 category.

[36] The Tukey multiple comparison test indicates that average length of stay for the plans operational for 16 or more years were significantly higher than those of the youngest plans (4 to 7 years of experience).

(4.2 days) for plans operational for 4 to 7 years.

For the elderly, both days per 1,000 and average length of stay were significantly higher for older plans. Discharges per 1,000 enrollees followed the same trend, increasing by plan age, but this finding was not statistically significant.[37] The older plans (16+ years) had the highest values for inpatient days per 1,000 and discharges per 1,000, reporting 1678 days per 1,000 (1,678) and discharges per 1,000 (238.5). One could speculate that older plans generally have older (and sicker) enrollees compared with new plans, yielding higher utilization rates.

If new plans are considered with the other age groupings (4 to 7, 8 to 15, and 16+ years), the utilization results are inconsistent in the relationship of age and use. However, if new plans and established plans are compared, inpatient utilization for new plans was generally higher than that reported for established plans for both the elderly and enrollees under 65. This fact may be indicative of the time needed to implement effective utilization management in new plans.

Ambulatory Utilization

Figure 9 shows the mean total encounters per member per year and physician encounters per member per year for enrollees under 65 in established plans (see Tables 7 to 9 for further detail). Total encounters per member per year for the under-65 population did not vary significantly by model type, region, size, or plan age. Physician encounters per member per year for the under-65 population varied significantly by model type.[38]

For the under-65 population, HMOs in the Middle Atlantic region averaged 5.4 total encounters per member per year, compared with 4.9 for all established plans. The lowest average number of total encounters was 4.1 for plans in the Mountain region. Plans with 100,000 enrollees or more had the highest average number of total encounters per member per year (5.1), but the relationship between plan size and number of encounters was inconsistent. (The lowest average was reported by plans with 20,000 to 49,999 enrollees.) The number of total encounters increased with increasing age; however, the relationship was not significant.

As in previous years, IPA model plans had a significantly higher average number of physician encounters than staff and network model HMOs for the under-65 population. Overall, IPAs reported a higher average number of physician encounters.[39] This result may be due to a higher use by staff and group model HMOs of non-physician providers, such as nurse practitioners and physician assistants, or it may be due to different reporting methods. The lowest average number of physician encounters (3.6) was reported by the Mountain and Pacific regions, mirroring the results for total encounters per member per year. However, differences among regions for physician encounters for the under-65 population were not significant.

For the elderly, total encounters per member per year did not vary significantly by model type, region, plan size, or plan age. Physician encounters varied significantly by plan size.[40]

For the elderly, plans in the South Atlantic region reported an average of 10.7 total encounters per member per month compared with the average of 8.8 for all established plans. Total encounters per member per year increased with plan age for established plans. None of the differences in the total encounter measures between groups was significant.

For the elderly, plans in the Middle Atlantic region reported the lowest average number of physician encounters per member per year: 5.7, versus 6.6 for all established plans. As noted for total encounters, the relationship of physician encounters per member per year to plan size was inconsistent. None of the differences in the physician encounter measures between groups was significant.

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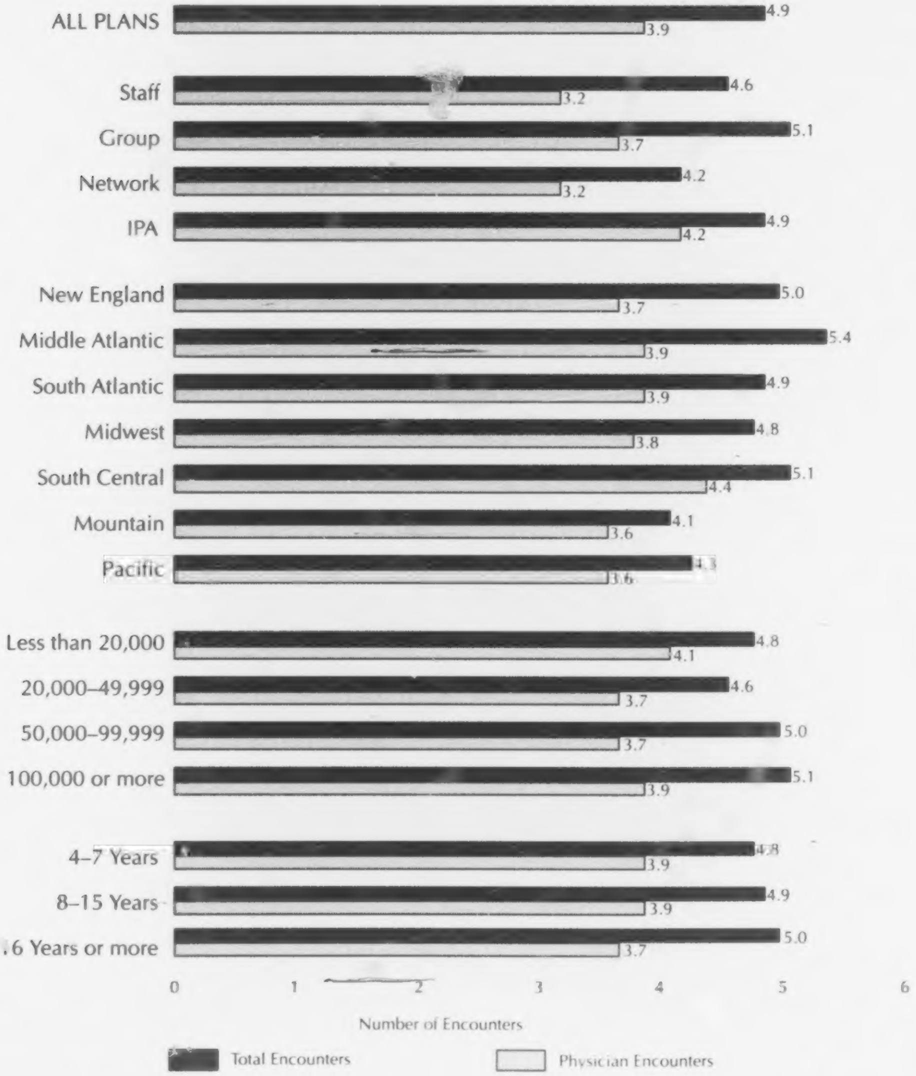
[37] For the elderly, the Tukey comparison test indicates that average length of stay for plans 16+ years old and plans 8 to 15 years old was significantly greater than the average length of stay for plans 4 to 7 years old. For the elderly, the Tukey comparison test indicates that days per 1,000 enrollees in older plans (16+ years) were significantly greater than the days per 1,000 rates for plans 4 to 7 years old.

[38] The *F*-value for physician encounters per member per year for the under-65 population across model type was 0.0026.

[39] Using the Tukey multiple comparison test, the average number of physician encounters per member per month for the under-65 population was significantly higher for IPA model plans than for staff and network model plans.

[40] For the elderly population, the *F*-value for variation of physician encounters per member per year across the four plan size categories was 0.0288. However, no significant between group differences were indicated using the Tukey comparison test.

Figure 9
Mean Total Encounters Per Member Per Year and Mean Physician Encounters Per Member Per Year, Members Under 65 Years Old, by Plan Characteristics, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

VII. UTILIZATION BY MEDICARE AND MEDICAID ENROLLEES

This chapter compares utilization rates for Medicare and Medicaid enrollees with those for other enrollees in HMOs. Because of their focus on the elderly, the disabled, and the poor, there has been considerable interest in these programs. HMO involvement with these programs has grown steadily although considerable barriers to plan participation continue to exist.

The enrollment of Medicare and Medicaid beneficiaries in HMOs has been a relatively recent phenomenon.[41] Although Medicare has provided limited HMO options since its inception and expanded the options in the 1972 Social Security amendments, the financing mechanisms were inconsistent with the way most HMOs deliver care. As a result, HMO participation in Medicare was not widespread until the 1980s, when first demonstrations and then legislative changes (in the Tax Equity and Fiscal Responsibility Act [TEFRA] of 1982) allowed HMOs to participate on a full-risk basis. Statutory changes to federal Medicaid law in 1981 enhanced the ability of HMOs to participate in Medicaid.

In December 1989, 1.8 million Medicare beneficiaries were enrolled in HMOs; over 61% were enrolled under the TEFRA risk-based option, with the rest enrolled under older HMO payment options.[42] According to June 1990 data, 1,037,184 Medicaid beneficiaries were enrolled in federally qualified HMOs and state-qualified HMOs, and 379,252 were in other prepaid health plans.[43]

Of the established plans that responded to these questions on GHAA's Annual HMO Industry Survey, 45% had Medicare enrollees and 27% had Medicaid enrollees (Figure 10).[44] Plans participating in the Medicare program had an average of 12,620 Medicare enrollees, representing a mean of 10% of their total enrollment. The average Medicaid enrollment was 10,121, representing a mean of 23% of total enrollment (Figure 11). (See Table 10 for further details.)

New plans were considerably less likely to be involved in the Medicare or Medicaid programs; however, those that participated were likely to have a large proportion of their enrollment devoted to the program(s). Of the new plans, 64% were not involved in either program; 23% were involved with Medicare, and 28% with Medicaid. The percentage of Medicaid enrollment in new plans substantially exceeds that in established plans (56% versus 23%, respectively). However, Medicare enrollment is only slightly greater for new plans than for established plans (11% versus 10%, respectively). Many of the new plans serving Medicaid enrollees may have been established exclusively for this purpose. For participating new plans, Medicaid and Medicare combined constitute 38% of total enrollment (see Table 10).

Utilization patterns displayed in Figure 12 compare utilization rates for Medicare and Medicaid enrollees with rates for all enrollees and enrollees under 65. Only data from HMOs reporting values for Medicare enrollees were used to calculate the means for the two comparison populations. The comparison is restricted to established plans because they have the greatest involvement with these programs.

Figure 12 shows the inpatient days per 1,000 enrollees, discharges per 1,000 enrollees, average length of stay, and ambulatory encounter rates for Medicare and Medicaid enrollees in HMOs, comparing these rates with those for the under-65 population and all enrollees for plans with Medicare

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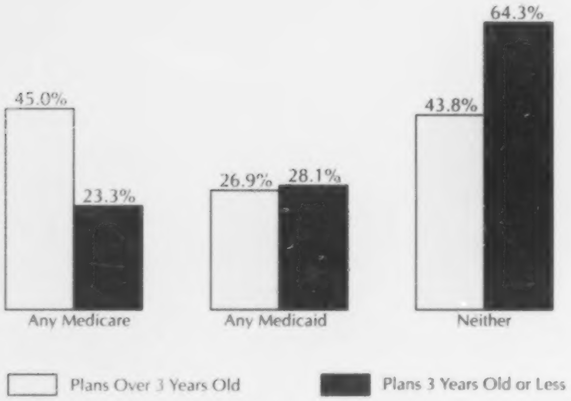
[41] For a review of the history of HMO involvement with the Medicare program, see Kathryn M. Langwell and James P. Hadley, "Capitation and the Medicare Program: History, Issues and Evidence," *Health Care Financing Review*, 1986 Annual Supplement, p. 9-20. For a review of HMO involvement with the Medicaid program, see Deborah A. Freund and Edward Neuschler, "Overview of Medicaid Capitation and Case-Management Initiatives," *Health Care Financing Review*, 1986 Annual Supplement, p. 21-30.

[42] In December 1989, there were 1,134,039 Medicare HMO enrollees under the TEFRA risk option; 8,005 under TEFRA risk contracts that have cost enrollees; 121,911 under cost-reimbursable options; 10,793 under older risk options; 133,859 under health care prepayment plans (HCPPs) converted to risk (cost enrollees remaining); 16,681 under demonstration options; and 417,267 under HCPPs and group practice prepayment plans. Monthly Report, Medicare Prepaid Health Plans, December 1989, Office of Prepaid Health Care, Division of Contract Administration, Health Care Financing Administration, Department of Health and Human Services.

[43] As of June 30, 1990, there were 3,009,246 enrollees in Medicaid programs: 1,592,810 enrollees in health insuring organizations (HIOs), 591,267 enrollees in federally qualified HMOs, 445,917 enrollees in state-defined HMOs, and 379,252 enrollees in other prepaid health plans. Personal communication, Health Care Financing Administration, Medicaid Managed Care Office (June 1991).

[44] The survey did not ask plans to specify the particular program option under which Medicare enrollees were served by the HMO (e.g., TEFRA risk basis, TEFRA cost basis, or HCPP).

Figure 10
Percentage of HMOs with Medicare and Medicaid Enrollment, by Plan Age, 1989



Source: GHAA's Annual HMO Industry Survey

enrollment reporting each of the statistics. (See Tables 10 to 12 for detailed statistics on inpatient utilization by Medicare and Medicaid enrollees.) The differences are expected, given the populations served by Medicare (elderly and disabled individuals) and Medicaid (low-income individuals, with HMO involvement heavily emphasizing women and children in the Aid to Families with Dependent Children [AFDC] program).

Overall, utilization rates for the Medicare population are higher than those for other populations. Established plans that served the Medicare population provided an average of 1,956 inpatient days of care per 1,000 enrollees, representing 267.1 discharges per 1,000 enrollees and an average length of stay of 7.5 days. Medicare enrollees in HMOs averaged 9.3 total encounters per member per year and 7.1 physician encounters per member per year. On average, physician encounters made up 80% of all encounters for Medicare enrollees.

Rates of inpatient days per 1,000 Medicare enrollees were significantly lower in the Pacific region (1,590) than in the New England (2,410) and Middle Atlantic (2,326) regions. This difference may be a result of the significantly higher length of stay reported for both the New England and Middle Atlantic regions compared with other regions. For the Medicare population, older plans (16+ years of operation) had a significantly lower days per 1,000 rate (1,766) compared with plans that had been in operation for 8 to 15 years (2,147). However, the relation of age and inpatient utilization was inconsistent when the days per 1,000 rate for the 4-to-7-year-old-plans (1,829) was considered.[45]

Medicaid enrollees in HMOs used 501 inpatient days of care per 1,000 enrollees, representing a discharge rate of 115.3 per 1,000 enrollees and an average length of stay of 4.3 days. Medicaid enrollees averaged 4.9 total encounters per member per year

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[45] For the Medicare population in established plans, inpatient days per 1,000 enrollees and average length of stay varied significantly across the seven regional categories. The *F*-value for inpatient days per 1,000 was 0.0052. The *F*-value for average length of stay was 0.0000. Using the Tukey multiple comparison test, inpatient days per 1,000 and average length of stay were significantly higher in New England and Middle Atlantic regions than in the Pacific region. Using the Tukey Multiple comparison test, average length of stay was significantly higher in the Middle Atlantic than in the Pacific, Mountain, South Central, South Atlantic, and Midwest regions. Additionally, the average length of stay in the New England region was significantly higher than in the Pacific, Mountain, and South Central regions. For the Medicare population, variations across plan age for days per 1,000 were significant, with an *F*-value of 0.025. Using the Tukey multiple comparison test, the days per 1,000 enrollees rate for the 8-to-15-year-old plans was significantly greater than the rate for older (16+) plans.

Figure 11
Medicare and Medicaid Enrollment in HMOs Relative to Total HMO Enrollment, by Plan Age, 1989

Figure 11a

Mean Number of Medicare and Medicaid Enrollees (for Plans Participating in these Programs) by Plan Age, 1989

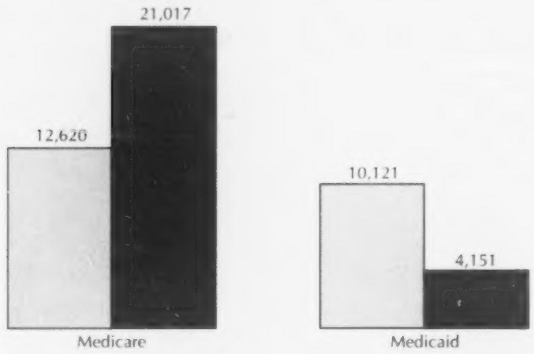
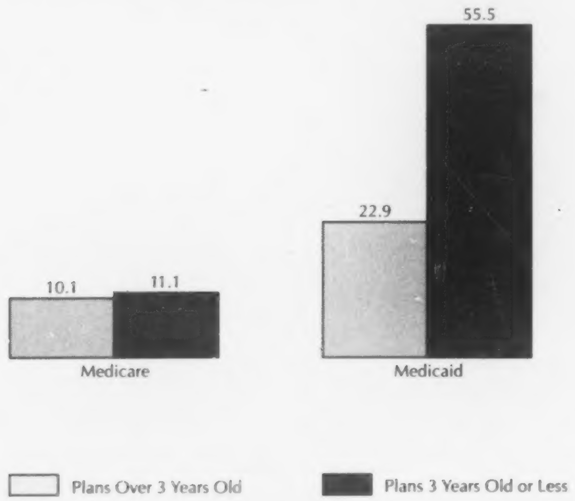


Figure 11b

Mean Percent of Total Enrollment of Medicare and Medicaid (for Plans Participating in these Programs) by Plan Age, 1989



Source: GHAA's Annual HMO Industry Survey

Figure 12
Selected Utilization Rates for Medicare, Medicaid, Under Age 65, and All Enrollees, Plans Over Three Years Old, 1989

Figure 12a
Days Per 1,000 Enrollees by Enrollment Type

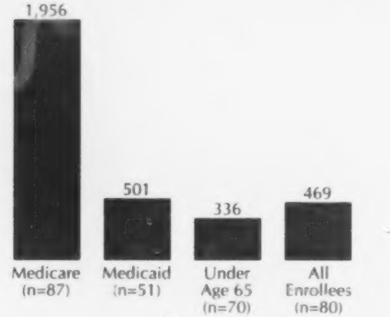


Figure 12b
Discharges Per 1,000 Enrollees by Enrollment Type

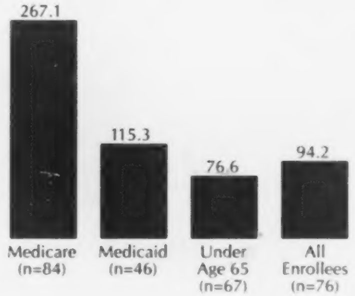


Figure 12c
Inpatient Length of Stay by Enrollment Type

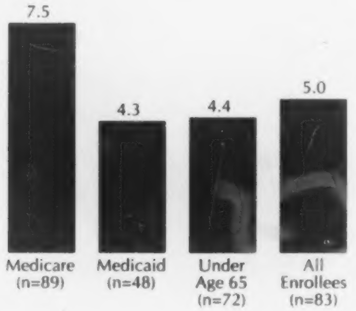


Figure 12d
Total Encounters Per Member Per Year by Enrollment Type

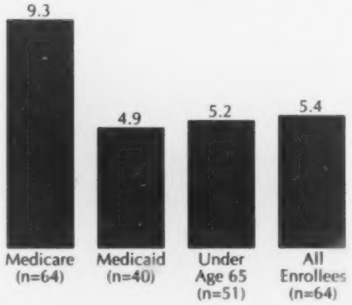
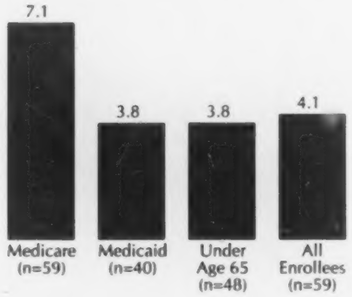


Figure 12e
Physician Encounters Per Member Per Year by Enrollment Type



Note: All Enrollees and Under 65 population values are restricted to the population of plans reporting that item for the Medicare population.
Source: GHAA's Annual HMO Industry Survey

and 3.8 physician encounters per member per year. On average, physician encounters constituted 81% of all encounters. The number of discharges per 1,000 was significantly greater for the largest plans(100,000+ enrollees) and smallest plans (0 to 19,999 enrollees) compared with medium plans (50,000 to 99,999 enrollees).[46]

A variety of factors could explain the higher utilization rates for the Medicaid population compared with the general population. Because Medicaid enrollment consists largely of mothers and children under the AFDC eligibility category, it is likely that a larger proportion of that population in HMOs receives maternity care, a high-intensity use of services. Medicaid enrollees also may be sicker, both because criteria for Medicaid eligibility include medical need and disability and because Medicaid beneficiaries are poor (a state associated with poorer health).[47] The Medicaid benefit package also tends to be more comprehensive (for example, a broader range of covered services and no copayments), which could affect utilization.

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[46] For the Medicaid population, variation in the number of discharges per 1,000 and days per 1,000 was significant. The *F*-values for discharges per 1,000 and days per 1,000 respectively were 0.0011 and 0.0350. Using the Tukey multiple comparison test, discharges per 1,000 for both the 0 to 19,999 and the 100,000+ enrollment categories were greater than those reported for the 50,000 to 99,999 group. For days per 1,000, rates for the 0 to 19,999 group were significantly greater than those reported for the 50,000 to 99,999 group.

[47] Because of the particular issues involved in enrolling disabled and chronically ill populations in HMOs (e.g., breaking established care patterns, getting informed agreement to enroll, setting rates, and meeting the special care needs of these populations), most states have focused, at least initially, on enrolling the AFDC population rather than the Supplemental Security Income population in HMOs.

VIII. SPECIAL TOPICS

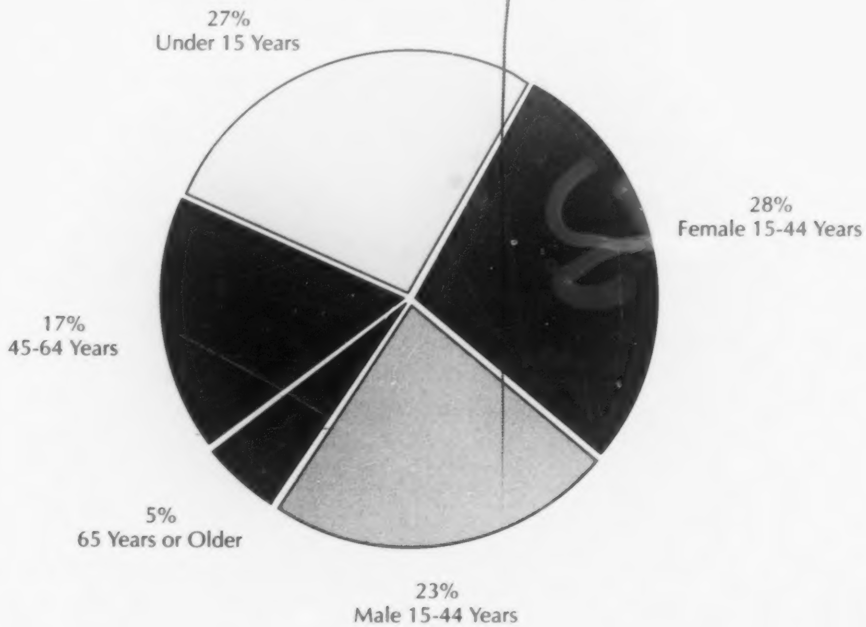
Enrollment and Inpatient Utilization by Age and Sex

This section provides an overview of enrollment and utilization statistics by age and sex characteristics. Of reporting plans, 206 provided full data on enrollment by age and sex. Seventy-five plans provided full data for inpatient days per 1,000 enrollees by age and sex. Table 13 provides summary statistics for enrollment and utilization by enrollee age and sex characteristics. Table 14 provides mean enrollment percentages by enrollee demographic group and plan characteristics.

Enrollment Composition

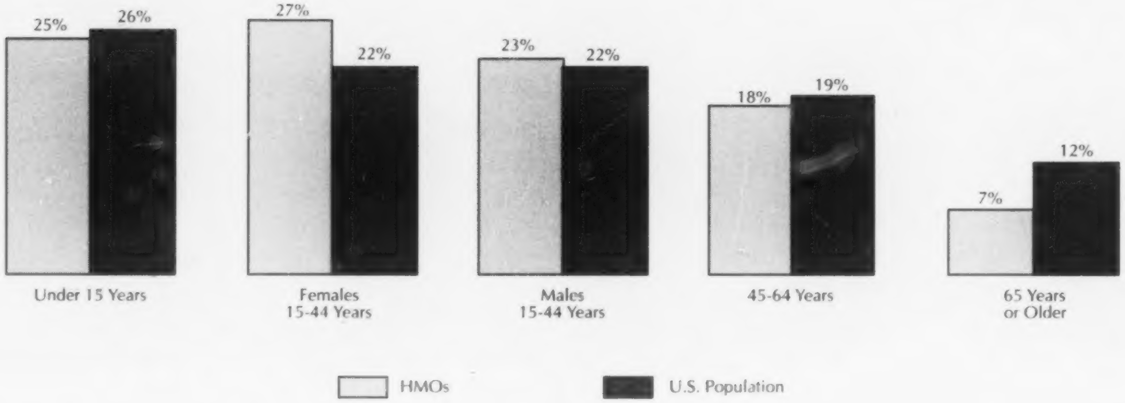
On average, 51% of HMO enrollees in established plans were 15-44 years old in 1989 (Figure 13). Of all HMO enrollees, 28% were females in this age group. The second largest HMO enrollee population was children (0-14 years of age), representing 27% of the average established plan enrollment. The distribution of the under-15 age group in HMOs is almost equally divided between the sexes: 14% of all HMO enrollees are male children and 13% are female children. Combined, the two groups of under-45 enrollees make up 78% of the average

Figure 13
Percentage of HMO Enrollment, by Enrollee Age and Sex, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

Figure 14
Percentage of HMO Enrollment (weighted) versus the Demographic Profile of the U.S. Population, 1989



HMO enrollment; 37% of these enrollees are males and 41% are females. Enrollees 45 or older constitute the remaining 22% of enrollment: 17% are in the 45-to-64 age group and 5% in the 65-or-older age group.

Figure 13, Table 13, and Table 14 provide a picture of enrollment in the average HMO. However, if demographics of HMOs are weighted by HMO enrollment, the profile of HMO enrollment changes slightly and becomes more comparable to the U.S. population overall. Figure 14 provides this comparison.

Generally, the profiles of the U.S. population and the HMO enrollee population were similar, but HMOs were somewhat more likely to include females of childbearing age and somewhat less likely to include the elderly.[48] Women in the 15-44-year-old age group make up 27% of HMO enrollment and 22% of the U.S. population. The elderly (65+) constitute 7% of HMO enrollment and 12% of the U.S. population.

Comparisons between the HMO population and the general population are influenced by patterns of insurance coverage and by selection among health benefit options. Women anticipating pregnancy may be attracted to HMOs because of the extensive coverage of maternity and pediatric care. The general population includes the uninsured and those in Medicaid (both of whom have unique demographic profiles) as well as those covered under indemnity insurance and other health coverage such as Medicare. The growth of the HMO-enrolled population is a recent phenomenon, and most HMOs chiefly serve employer accounts, as do indemnity plans, preferred provider organizations, and other private insurance plans.

Reflecting this situation, the largest differences in the weighted average profile of established HMOs and the U.S. population occurred with regard to the elderly. In established plans, only 7% of the enrolled population was elderly, but approximately 12% of the resident population of the United States was elderly; however, this result is not unexpected. Most HMOs have historically focused on the employer market, which does not have a large elderly population. This pattern is beginning to change as enrollees reach retirement age and remain in their HMOs under Medicare options. HMO participation in the Medicare program became more widespread with the introduction of allowances for full-risk contracting in 1985.

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[48] Estimated percentages for U.S. population segments are based on projections of population from Table 18 of the *Statistical Abstract of the United States, 1990,* 110th edition, p. 16.

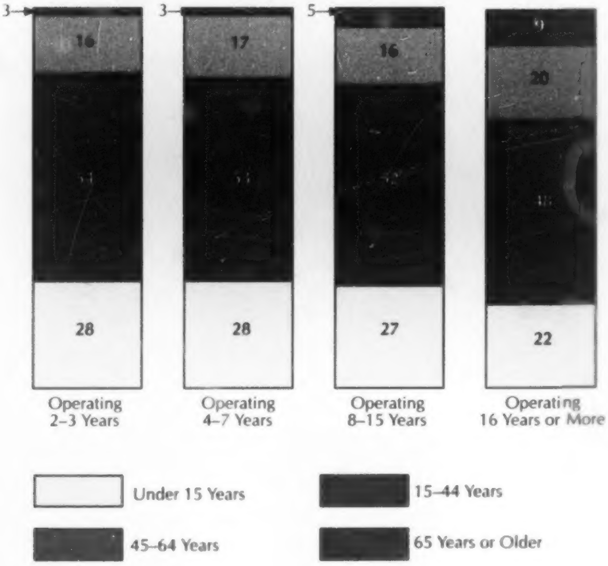
The composition of HMO enrollment by age group across plans of different characteristics is fairly uniform (Table 14), even if weighted averages are considered. The largest variation is the percentage of elderly enrollees in new plans compared with established plans. New plans have a slightly smaller percentage of elderly enrollees (3%) than established plans (5%). However if the differences are examined incrementally, older and larger plans have a higher proportion of older (45+) enrollees than other plans (Figure 15). Twenty-nine percent of enrollees in the oldest (16+) HMOs are 44 years old or older; 19% of enrollees in younger plans are 44 years old or older. This finding probably reflects a core of continuously enrolled individuals who have aged within the plans. Hence, as HMOs mature, their populations may come to resemble more closely the demographics of the nation.

Inpatient Utilization

While only a limited number of plans provided age- and sex-specific utilization data, there is considerable interest in these data; hence, they are presented here. For established plans, female enrollees in the 15-44 age group (the largest segment of the HMO enrollee population) used 432.0 inpatient days per 1,000 enrollees. On average, male enrollees in this age group used 232.4 inpatient days per 1,000 enrollees.

In contrast, male children used more days than female children: male enrollees under 15 used 222.3

Figure 15
Percentage of HMO Enrollment by Enrollee Age Group and Plan Age, 1989



Source: GHAA's Annual HMO Industry Survey

inpatient days per 1,000 enrollees, compared with 204.0 for females under 15.

Enrollees aged 45-64 used more care than all groups except the elderly. Male enrollees in this age group used 609.9 inpatient days per 1,000 enrollees and female enrollees used 535.3 days. Among the elderly, male enrollees used more inpatient days than females: elderly male enrollees used 1,542.2 inpatient days per 1,000 enrollees, compared with 1,179.8 for female enrollees.[49]

For all age groups, both male and female HMO enrollee inpatient utilization rates were substantially less than the aggregate (male and female combined) national rates for inpatient utilization.[50]

Caesarean Sections as a Percentage of Total Deliveries

This section discusses caesarean section rates for HMOs. This is the second year that GHAA's Annual HMO Industry Survey has requested this procedure-specific information. Generally, procedure-specific information is difficult to obtain because many plans cannot report such data in summary form and the information is difficult to interpret without controlling for case mix. We chose caesarean rates as a pilot for measuring procedural level utilization because they are currently of national interest and are likely to be monitored by plans.[51]

Approximately 70% of the plans reporting caesarean rates were network or IPA model plans.[52] On average, the network and IPA caesarean rates were higher than the rates for group and staff model HMOs. Examination of the median rates across regions indicates that both regional differences and model type appear to influence caesarean rates, with model type differences particularly strong in the Pacific region (see Exhibit 11 and Table 15). For established plans, the median caesarean rate for network and IPA model HMOs was 25%; for group and staff model HMOs the rate was 21%. Caesarean rates vary across regions just as they vary for the general population. The highest median caesarean rates were reported in the Midwest and the South Central regions (26% and 28%, respectively). A total of 177 established plans provided caesarean section rates.

Overall, network and IPA rates were close to the national average of 23.8%[53]. Group and staff model rates were slightly lower. However, the U.S. rate may understate the rate for the commercially insured population, which may have higher rates than other populations.[54]

The distribution of the reported caesarean rates also was broader for network and IPA model plans than for group and staff models (Figure 16). Ten percent of the network and IPA rates were in the 0 to 15% range, 18% were in the 16%-20% range, 27% were in the 21%-25% range, 26% were in the 26%-30% range, and 19% were equal to or greater than 31%. In contrast, the rates of 78% of the group and staff model plans were clustered in the 0%-25% range. Hence the distributions overlap, but there is more variability for the network and IPA models.

As we found last year, the caesarean section rates were greater for network and IPA plans compared with group and staff model plans for all age groups (Figure 17). Additionally, as reported last year, the difference in the distribution of the rates was incon-

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[49] The reader may note that there is a significant difference in the inpatient days per 1,000 enrollees reported here and the overall rate reported earlier in this volume. This difference is primarily due to differences in the population of the plans surveyed. Overall, 75 plans reported age-specific days per 1,000 rates. For established plans, 70 plans reported age-specific days per 1,000 rates.

[50] For children under 15, the national average inpatient days per 1,000 enrollees rate was 234.3. For the 15-44 age group, it was 481.1; for the 44-64 age group, 903.7; for the elderly (65+), 2,930.4. These national rates are based on data from the National Hospital Discharge Survey for 1989, which are based on hospital records for the U.S. population. See Table 73 in *Health United States, 1990* (see note 17 for full reference).

[51] For recent articles on HMOs and caesarean sections, see Selma M. Taffel, et al., "Trends in the United States Cesarean Section Rate and Reasons for the 1980-85 Rise," *American Journal of Public Health* 77, no. 8 (August 1987); Derek van Amerongen, "Vaginal Birth After Cesarean Section in an HMO," *HMO Practice* (May/June 1989):104-107; Bruce L. Flamm, "America's Most Common Operation: Implications for HMOs," *ibid*:77-78; Norbert Gleicher, "A Successful Program to Lower Cesarean-Section Rates," *New England Journal of Medicine* 319, no. 23 (December 8, 1988):1511-1516; Frederick C. Battaglia, "Reducing the Caesarean-Section Rate Safely," *ibid*:1540-1541; Evelyn Gilbert, "Unnecessary C-Sections Hit Companies, Patients," *National Underwriter* (January 22, 1990):16-17. For commentary on the development of caesarean section as a policy concern, see Emily Friedman, "Of Policy and a Procedure: How C-Sections Became a Consumer Issue," *Utilization Review* (March 1, 1990):4-7; and Elizabeth Sternberg, "Unsolved Mystery: The Case of the Ideal Caesarean Section Rate," *Target Quality*, Maryland Hospital Association (May 1990):2-8.

[52] Seventy-five percent of the (552) plans surveyed were network or IPA plans.

[53] Data for 1989 indicate that the national caesarean section rate was 23.8% and may have plateaued. The 1989 rate was essentially the same as previous rates of 24.7% in 1988, 24.4% in 1987, and 24.1% in 1986. There has been no statistically significant change in the overall cesarean rate since 1986. See Selma M. Taffel, et al., "1989 U. S. Cesarean Section Rate Steadies--VBAC Rises to Nearly One in Five," *BIRTH* vol. 18, no. 2 (June 1991).

[54] See Elizabeth Sternberg, "Unsolved Mystery--The Case of the Ideal Cesarean Section Rate," *Target: Quality*, Maryland Hospital Association (May 1990).

Exhibit 11
Caesarean Section Rates, Median Percent of HMO Deliveries, 1989

	All Plans[1]	Group/Staff	Network/IPA
All Regions	23%	21%	25%
New England	21%	21%	20%
Middle Atlantic	25%	24%	26%
South Atlantic	26%	25%	27%
Midwest	22%	20%	23%
South Central	28%	27%	29%
Mountain	19%	**	22%
Pacific	21%	17%	28%

Notes:
1. Plans over three years old; 70% reporting were IPAs.
** Too few cases.
Source: GHAA's Annual HMO Industry Survey

sistent and no apparent association between plan age and caesarean section rate was found.

Enrollment Turnover Rates

This is the first year GHAA has collected descriptive data on HMO enrollment turnover, and Figure 18 summarizes our findings. However, given recent changes in the NAIC reporting format GHAA may not collect enrollment turnover data in future surveys.[55]

Other authors have investigated enrollment and disenrollment in HMOs. However, most of the work in this area has focused on disenrollment and its measurement.[56]

We collected data that specified beginning enrollment, additions to enrollment, terminations of enrollment, and ending enrollment for the calendar year. Using these data we calculated four measures of enrollment gains and losses:

1) Gross Enrollment Rate, a measure of new annual enrollment
2) Disenrollment Rate, a measure of annual terminations
3) Net Enrollment Rate, a measure of overall annual enrollment gain (or loss)
4) Additions to Terminations Ratio[57]

These four measures were calculated for three populations: Medicare, Medicaid, and all enrollees. Figure 18 summarizes our findings for established plans. Because of the small relative number of responding plans, statements about Medicare and Medicaid in this section are based on all plans and

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[55] In 1990, the National Association of Insurance Commissioners adopted a new format for annual HMO reporting that does not include data for additions and terminations of enrollees. Traditionally, GHAA has mirrored the NAIC reporting format for utilization and financial information to minimize the reporting burden and ensure standardization of the data items.

[56] For selected other publications related to disenrollment, see D. Shimshak, M. DeFuria, J. DiGiorgio, and J. Getson, "An Analysis of HMO Disenrollment Data," *GHAA Journal* (Summer 1987), pp. 13-22 ; D. Shimshak, M. DeFuria, J. DiGiorgio, and J. Getson, "Controlling Disenrollment in Health Maintenance Organizations," *Health Care Management Review*, vol. 13, no. 1, pp. 47-55 ; S. Holmes, "How to Determine Whether Your Organization Has a Disenrollment Problem," *GHAA Group Health Institute 1990 Proceedings*, June 10-13, Los Angeles, Calif., pp. 535-549; D. Mechanic, N. Weiss, and P. D. Cleary, "The Growth of HMOs: Issues of Enrollment and Disenrollment," *Medical Care* 21 (1983):338-347; V.D. Henelly and S. B. Boxerman, "Out-of-Plan Use and Disenrollment: Outgrowths of Dissatisfaction with Prepaid Group Plan," *Medical Care* 21 (1983):348-359; L. J. Wollstadt, S. Shapiro, and T. W. Bice, "Disenrollment from a Prepaid Group Practice: An Actuarial and Demographic Description," *Inquiry* 15 (June 1978):142-150.

[57] Definitions for the measures were as follows:

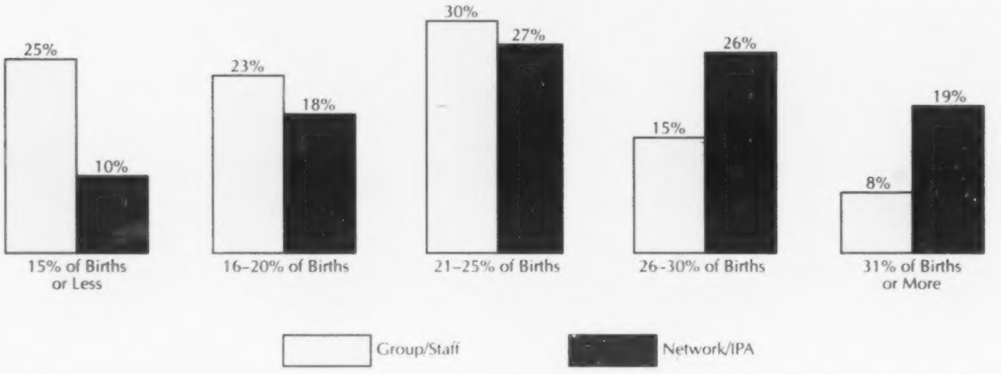
Gross Enrollment Rate = (Additions to membership in 1989/ total membership year-end 1988) * 100.

Disenrollment Rate = (Termination of membership in 1989/ (total membership year-end 1989 + terminations of membership in 1989))

Net Enrollment Rate = ((Additions to membership 1989 - Terminations of membership in 1989)/ total membership year-end 1988)) * 100

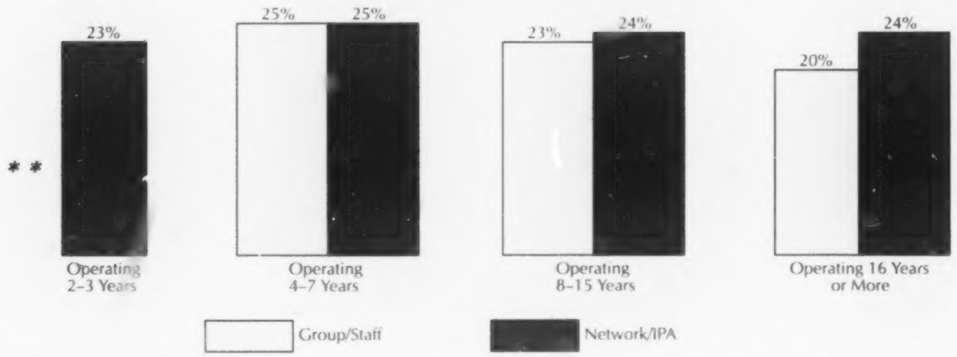
Additions to Terminations Ratio = Additions to membership in 1989/Terminations of Membership in 1989

Figure 16
Distribution of Caesarean Section Rates as a Percentage of HMO Deliveries, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

Figure 17
Caesarean Section Rates, Median Percentage of HMO Deliveries, by Plan Age, 1989



Source: GHAA's Annual HMO Industry Survey
** Too few cases

not just those over 3 years old (established plans).

Although enrollment in HMOs has continued to increase in recent years, retention of enrollees has become more important as the health care marketplace has become more competitive. Growth for an HMO is the combined result of new enrollment gains and disenrollment; therefore, measures of both types are important to monitor. However, the measures reported here should be interpreted with caution, as they include involuntary changes that are outside a plan's control. These involuntary changes include geographic relocation, change in employ-

Figure 18
Median Gross Enrollment Rate, Disenrollment Rate, Net Enrollment Rate and Additions to Terminations Ratio For All Enrollees, Medicare and Medicaid, Plans Over Three Years Old, 1989

Figure 18a
Gross Enrollment Rate

Figure 18b
Disenrollment Rate

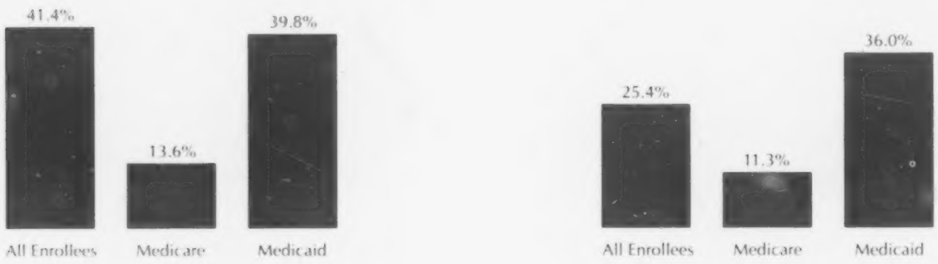
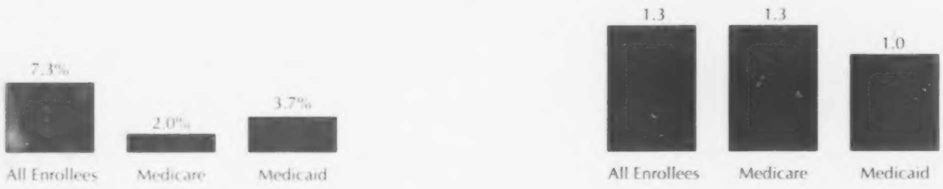


Figure 18c
Net Enrollment Rate

Figure 18d
Additions To Terminations Ratio



Source: GHAA's Annual HMO Industry Survey

ment, and loss of insurance eligibility. Also, there may be some artificial inflation of the measures because of changes in family status or administrative factors related to the accretions and deletions process.[58]

Gross Enrollment Rate

The gross enrollment rate provides a measure of new enrollment gains. Generally, the gross enrollment rates for all enrollees reflects one part of the growth of HMO enrollment in 1989. For established plans, the mean gross enrollment rate was 52%, with a median rate of 41% (Table 16). Staff model plans reported the lowest median rate (29%), and IPAs reported the highest median rate (43%).

For all plans reporting for Medicaid enrollees, the mean gross enrollment rate was 56% and the median was 45% (Table 18). Network and IPA model plans reported a higher median gross enrollment rate (60%) than staff and group model HMOs (36%).

For all plans reporting for Medicare enrollees, the mean gross enrollment rate was 28%, with a median of 14%. Younger plans (4 to 7 years of operation) reported a higher median enrollment rate (20%) than older plans (13%).

Disenrollment Rate

The disenrollment rate expresses disenrollment in a given time period as a percentage of the total enrollment. This rate as calculated uses the most common method of defining total enrollment: total membership at the end of the time period plus the number of disenrollees for the period.

A wide range of disenrollment rates has been reported in the literature. Luft reviewed the results of several studies and reported disenrollment rates in the single digits. However, there were a number of exceptions where higher rates occurred.[59] Wollstadt, Shapiro, and Bice found average annual disenrollment rates for Medicaid beneficiaries of 42% overall, with a voluntary disenrollment rate of 23%.[60] Mechanic, Weiss, and Cleary studied a staff model HMO in a metropolitan area; they reported an annual disenrollment rate of approximately 20% and a voluntary disenrollment rate of 14%.[61] However, most of these studies covered a limited number of HMOs and a particular region.

For all enrollees in established plans, voluntary and involuntary disenrollment yielded an average rate of 26% of the total enrollment and a median of 25% (Table 16). Generally, variation by plan characteristics was not great. Commercial insurers reported the greatest median disenrollment rate of 33%, compared with 21% for both independent and provider-sponsored HMOs.

Disenrollment for Medicaid enrollees was greater than the rates reported for the all-enrollee population. For all plans reporting for Medicaid enrollees, the average disenrollment rate was 30% and the median was 36% (Table 18). Staff and group model plans reported a median disenrollment rate of 38%, compared with 31% for network and IPA HMOs. The higher disenrollment rate for Medicaid compared with all enrollees probably reflects the frequency of changes in eligibility status of beneficiaries in the Medicaid program.

Disenrollment for Medicare enrollees was less than the rates reported for the all enrollee population. For all plans reporting for Medicare enrollees, the mean disenrollment rate was 18%, with a median of 12% (Table 18). Staff and group model plans reported a lower median disenrollment rate (9%) compared with network and IPA plans (17%). Younger plans (4 to 7 years of operation) reported a higher median disenrollment rate (18%) compared with the median disenrollment (9%) of older plans.

The lower rate of change in the Medicare population may reflect the more conservative nature of the elderly population. The elderly may tend to maintain a relationship with their providers once they are enrolled. For the elderly population, most enrollment change occurs in their first year. As a consequence, plans with a rapidly growing Medicare population may have higher disenrollment rates.

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[58] In the study by David Mechanic, et al., "The Growth of HMOs: Issues of Enrollment and Disenrollment," *Medical Care* 21 (1983): 338-347, the HMO studied typically had a high rate of recorded terminations, varying from 19% to 31%. In studying a 1-year period they estimated that of the 31% disenrollment reported, only 22% were actually disenrollees.

[59] H. S. Luft, *Health Maintenance Organizations: Dimensions of Performance* (New York: Wiley, 1981).

[60] L. J. Wollstadt, S. Shapiro, and T. W. Bice, "Disenrollment from a Prepaid Group Practice: An Actuarial and Demographic Description," *Inquiry* 15 (June 1978): 142-150.

[61] D. Mechanic, N. Weiss, and P. D. Cleary, "The Growth of HMOs: Issues of Enrollment and Disenrollment," *Medical Care* 21 (1983): 338-347.

Net Enrollment Rate

The net enrollment rate provides a measure of the overall change in the 1989 calendar year. For all enrollees in established plans, the mean net enrollment change was 11%, with a median rate of 7%. Overall, the South Central region had the lowest median enrollment rate (1.9%) and the Pacific region reported the highest (17%). Commercial insurers reported a net loss of enrollment of 7%, with the largest gains in net enrollment reported by provider-sponsored plans (19%) (see Table 17).

For all plans reporting for Medicaid enrollees, the mean net enrollment rate was 9% and the median was 4% (see Table 18). Network and IPA model plans reported a positive median net enrollment rate (7%), compared with the negative rate (-5%) reported for staff and group model HMOs.

For all plans reporting for Medicare enrollees, the mean net enrollment rate was 0.2%, with a median of 2%. Network and IPA model plans reported a negative median net enrollment rate (-3%) compared with the positive rate (3%) reported for staff and group model HMOs. Younger plans (4 to 7 years of operation) reported a negative median enrollment rate (-5%) compared with the positive median enrollment rate (3.4%) of older plans (16+ years of operation).

Additions to Terminations Ratio

The additions to terminations ratio expresses the net effect of new enrollment and disenrollment on membership for the 1989 calendar year. This value is the number of members added in the year divided by the number of disenrollees over the same period. The results emphasize the overall growth in HMO enrollment for the 1989 calendar year.

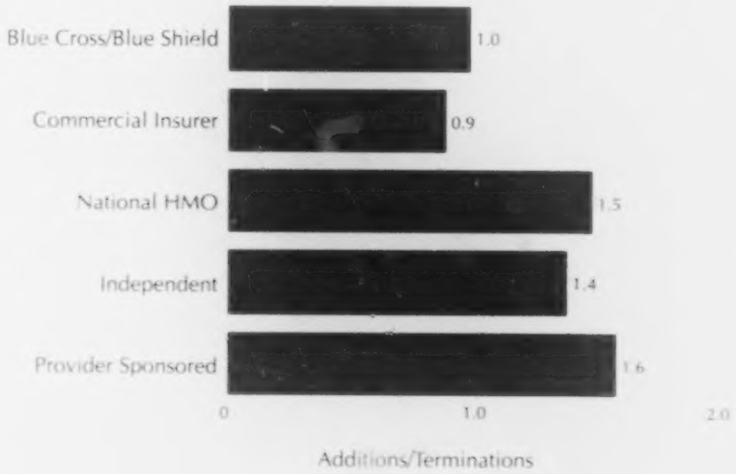
For all enrollees in established plans, the median additions to terminations ratio in 1989 was 1.3: HMOs gained 13 enrollees for every 10 enrollees lost. Network model plans reported the highest median additions to terminations ratio (1.5), and staff model plans reported the lowest (1.2).

Analysis showed some differences in the additions to terminations ratio among different owner types. The only median value less than 1.0 (indicating a loss in enrollment) was for commercial insurers. Blue Cross and Blue Shield plans remained stable, with a median value of 1.0. The largest median ratio was reported by provider-owned plans with a ratio of 1.6—a gain of 16 enrollees for every 10 who terminated. The apparent decline in insurer-based HMOs may reflect the more complex range of managed care products offered by commercial insurers, with enrollees switching among options (see Figure 19).

For all plans reporting for Medicaid enrollees, the mean additions to terminations ratio was 2.0 and the median was 1.1 (Table 18). Staff and group plans reported a median additions to terminations ratio of 0.7, compared with the ratio of 1.2 for network and IPA model HMOs. Younger plans (1 to 3 years old) reported a higher median additions to terminations ratio (2.0) compared with plans 16 years old or older (0.9). The ratio of 0.9 for older plans indicates a loss of enrollment.

For all plans reporting for Medicare enrollees, the mean additions to terminations ratio was 1.8, with a median of 1.2. Network and IPA model plans reported a median additions to terminations ratio of 0.9, compared with 1.6 for staff and group model HMOs. Younger plans (4 to 7 years of operation) reported a median ratio of 0.9 (indicating a loss of enrollment) compared with a ratio of 1.5 for older (16+ years) plans.

Figure 19
Median Additions to Terminations Ratio for All Enrollees by Owner Type, Plans Over 3 Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

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GUIDE TO USING THE DETAILED TABLES

All detailed tables contain statistics for all responding plans and separate statistics for those plans with more than 3 years' operational experience. *Caution should be used in examining data in tables to be sure that the data used are for the desired plan age group*. Tables present data by plan age either as separate columns or as sequential rows of data. The data are ordered with totals first for all plans, followed by data for plans over 3 years old.

Most tables provide separate statistics for plans of various characteristics. The characteristics are consistent across tables and include model, region, size, plan age, tax status, federal qualification status, ownership, and multistate organization.

Definitions used in arraying plans by these characteristics are given below.

Model Type (Defined in the questionnaire)

Plans were asked to identify which model best reflects the predominant components of the plan.

Staff: An organized prepaid health care system that delivers health services through a salaried physician group that is employed by the HMO unit.

Group: An organized prepaid health care system that contracts with one independent group practice to provide health services.

Network: An organized prepaid health care system that contracts with two or more independent group practices to provide health services.

IPA: An organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations of physicians in independent practice, and/or with one or more multispecialty group practices (but predominately organized around solo/single specialty practices) to provide health services.

Region (GHAA-coded based on the state that the plan indicated had the largest share of its enrollment: groupings are based on U.S. Census regions)

New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

Middle Atlantic: New Jersey, New York, and Pennsylvania.

South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South Central: Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas.

Mountain: Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, and Wyoming.

Pacific: Alaska, California, Guam, Hawaii, Washington, and Oregon.

Size

The size of the plan was based on collapsed codes from plan-reported data on total enrollment as of March 31, 1990.

Tax Status

Tax status was requested as of March 31, 1990.

Federal Qualification Status

Federal qualification status was based on plan-reported data. Plans indicating that they were federally qualified in some service areas were included in the federally qualified group. Federal qualification status was requested as of March 31, 1990.

Ownership

Ownership was based on recoding from plan-reported data. "Independent" refers to plans independently owned and operated and includes plans reported under "other" in previous editions of the Profile. These include cooperatives, university-sponsored plans, publicly sponsored plans, and others. "Provider-sponsored plans" refers to plans owned by physicians, hospitals, or both physicians and hospitals, either as independent plans or as parts of chains.

Multistate Organization

Multistate classification defines whether or not a plan is part of an organization owning different HMOs in two or more states. Single-entity HMOs with a contiguous service area in two states were consistently classified as single-state organizations. Responses were audited and corrected for consistency among plans of the same ownership, but otherwise are based on respondent classification.

Table 1 Selected Characteristics of Responding HMOs, by Plan Age, 1989[1]

	All Plans			Plans > 3 Years Old			Plans ≤ 3 Years Old		
Selected Characteristics	**No. of Plans**	**% of Plans**	**% of Enrollees**	**No. of Plans**	**% of Plans**	**% of Enrollees**	**No. of Plans**	**% of Plans**	**% of Enrollees**
TOTAL	372	100.0	100.0	317	100.0	100.0	55	100.0	100.0
MODEL									
Staff	47	12.6	13.9	44	13.9	14.7	3	5.5	5.3
Group	55	14.8	34.2	54	17.0	36.3	1	1.8	4.5
Network	51	13.7	15.1	41	12.9	15.3	10	18.2	9.6
IPA	219	58.9	36.8	178	56.2	33.6	41	74.5	80.6
REGION									
New England	28	7.5	8.0	22	6.9	8.2	6	10.9	4.1
Middle Atlantic	47	12.6	10.9	37	11.7	11.0	10	18.2	8.6
South Atlantic	58	15.6	10.9	49	15.5	9.5	9	16.4	31.8
Midwest	114	30.6	22.7	98	30.9	23.3	16	29.1	21.7
South Central	30	8.1	6.1	27	8.5	5.9	3	5.5	10.2
Pacific	48	12.9	34.2	44	13.9	35.8	4	7.3	4.1
SIZE									
0–19,999	132	35.5	5.1	95	30.0	4.2	37	67.3	21.4
20,000–49,999	107	28.8	12.2	95	30.0	11.3	12	21.8	29.5
50,000–99,999	60	16.1	15.6	55	17.4	15.0	5	9.1	27.3
100,000–249,999	56	15.1	28.7	56	17.7	30.2	1	1.8	21.7
250,000+	17	4.6	38.4	16	5.0	39.3	–	–	–
AGE									
1–3	55	14.8	5.0	–	–	–	55	100.0	100.0
4–7	170	45.7	22.0	170	53.6	23.2	–	–	–
8–15	98	26.3	32.6	98	30.9	34.3	–	–	–
16–25	36	9.7	12.4	36	11.4	13.1	–	–	–
26+	13	3.5	28.0	13	4.1	29.4	–	–	–
TAX STATUS									
Nonprofit	133	35.8	58.1	121	38.2	61.1	12	21.8	10.8
For-profit	239	64.2	41.9	196	61.8	38.9	43	78.2	89.2
QUALIFICATION STATUS									
Federally Qualified	234	62.9	79.8	217	68.5	81.1	17	30.9	57.4
Non-qualified	138	37.1	20.2	100	31.5	18.9	38	69.1	42.6
OWNERSHIP									
Blue Cross/Blue Shield	54	14.5	11.6	50	15.8	11.7	4	7.3	9.9
Commercial Insurer	91	24.5	10.2	72	22.7	9.7	19	34.5	22.9
National HMO Co.	47	12.6	36.4	45	14.2	37.9	2	3.6	6.5
Independent	89	23.9	25.8	78	24.6	26.7	11	20.0	13.6
Hospital	32	8.6	7.5	25	7.9	5.9	7	12.7	32.1
Physician	24	6.5	3.2	20	6.3	2.9	4	7.3	5.6
Hospital & Physician	20	5.4	3.0	17	5.4	2.9	3	5.5	5.8
Other	15	4.0	2.3	10	3.2	2.2	5	9.1	3.7
MULTISTATE ORGANIZATION									
Yes	152	40.9	52.2	126	39.7	52.0	26	47.3	59.7
No	220	59.1	47.8	191	60.3	48.0	29	52.7	40.3

Notes:

1. Plan size and plan characteristics are as of December 31, 1989. Model, region, tax-status and ownership characteristics are as of March 31, 1990.

Source: GHAA's Annual HMO Industry Survey

Table 2 Mean Total Physicians per 1000 Enrollees by Type of Physician and Percentage of Primary Care Physicians to Total Physicians by Selected Plan Characteristics and Plan Age, 1990[1,2]

Selected Characteristics, by Plan Age	Total Phys./ 1000	Primary Care Phys./ 1000	% Primary[4] Care Phys. to Total Phys.	G.P. and F.P. Phys./1000	Internal Medicine Phys./1000	Pediatric Phys./ 1000	OB/GYN[3] Phys./ 1000
ALL PLANS[5]	33.08	11.85	38.9%	3.36	2.38	1.65	1.71
(Number of Plans)	(250)	(323)	(240)	(267)	(269)	(270)	(220)
MODEL							
Staff	3.21	2.48	51.4	1.15	0.57	0.44	0.34
Group	5.04	2.71	47.5	0.61	0.57	0.34	0.33
Network	45.88	11.72	37.7	3.97	2.78	1.78	2.63
IPA	40.85	16.18	35.7	4.38	3.14	2.22	2.18
SIZE							
0–19,999	56.13	22.18	36.1	5.17	3.72	2.69	3.12
20,000–49,999	32.79	8.69	35.3	3.60	1.98	1.49	1.44
50,000–99,999	15.28	4.98	39.6	1.81	1.54	1.02	0.94
100,000+	10.42	4.83	47.4	1.57	1.53	0.78	0.69
PLANS > 3 YEARS[5]	28.57	10.15	39.3	2.96	2.06	1.33	1.34
(Number of Plans)	(212)	(281)	(204)	(229)	(231)	(232)	(188)
MODEL							
Staff	3.21	2.48	51.4	1.17	0.56	0.43	0.35
Group	4.99	2.69	47.2	0.58	0.56	0.34	0.33
Network	39.72	9.53	39.2	3.31	2.01	1.53	1.72
IPA	36.92	14.43	35.7	4.03	2.89	1.82	1.84
STAFF AND GROUP PLANS > 3 YEARS	4.20	2.60	49.0	0.88	0.56	0.39	0.34
(Number of Plans)	(56)	(88)	(51)	(71)	(71)	(73)	(61)
SIZE							
0–19,999	6.41	3.05	37.4	1.37	0.77	0.40	0.41
20,000–49,999	6.36	4.02	47.7	1.26	0.57	0.51	0.80
50,000–99,999	4.88	2.41	48.0	1.03	0.68	0.52	0.28
100,000+	2.11	1.08	52.7	0.18	0.33	0.19	0.12
NETWORK AND IPA PLANS > 3 YEARS	37.32	13.59	36.1	3.90	2.73	1.77	1.82
(Number of Plans)	(156)	(193)	(153)	(158)	(160)	(159)	(127)
SIZE							
0–19,999	55.42	24.48	35.9	5.59	3.91	2.50	3.07
20,000–49,999	36.98	9.86	32.8	4.05	2.12	1.66	1.37
50,000–99,999	21.82	7.09	35.1	2.37	2.27	1.42	1.48
100,000+	17.01	7.12	43.0	2.49	2.34	1.20	1.15
PLANS ≤ 3 YEARS[5]	58.28	23.21	36.1	5.74	4.34	3.55	3.85
(Number of Plans)	(38)	(42)	(36)	(38)	(38)	(38)	(32)

Notes:

1. Total physicians include all physicians affiliated with the plan regardless of their time commitment.
2. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses the data were trimmed. Values greater than three standard deviations from the mean were excluded. A maximum of nine plans were eliminated using this criteria.
3. In calculating means for OB/GYN, we excluded values of 0 since a number of plans did not provide this specific breakdown and including 0 would distort the mean. Allowing 0 values in the calculation of OB/GYN physician staffing ratios results in means of 1.4 for all plans (n = 268), 1.1 for plans > 3 years (n = 230), and 3.2 for plans ≤ 3 years (n = 38).
4. All values in this column represent a percentage.
5. These rows represent all model types.

Source: GHAA's Annual HMO Industry Survey

Table 3 Mean Full-time Physicians per 1000 Enrollees in Staff and Group Model Plans by Type of Physician and Various Other Measures by Selected Plan Characteristics and Plan Age, 1990[1]

Selected Characteristics, by Plan Age	Full-time Phys./ 1000	PC Phys./ 1000	% PC[3] Phys. to Full-time Phys.	G.P. and F.P. Phys./1000	Int. Med Phys./ 1000	Pediatric Phys./ 1000	OB/GYN[2] Phys./ 1000	% Full-time[3] Phys. to Total Phys.	% Full-time[3] PC Phys. to Total PC Phys.
ALL PLANS	1.28	0.90	72.7%	0.33	0.32	0.21	0.12	70.8%	70.6%
(Number of Plans)	(31)	(44)	(30)	(44)	(45)	(47)	(33)	(29)	(42)
MODEL									
Staff	1.12	0.87	76.8	0.36	0.29	0.20	0.11	64.8	67.6
Group	1.61	0.98	64.5	0.26	0.40	0.21	0.13	82.1	79.4
SIZE									
0–19,999	1.62	1.68	*	0.73	0.53	0.32	0.12	58.0	79.9
20,000–49,999	1.42	0.81	82.5	0.28	0.29	0.20	0.15	59.8	66.7
50,000–99,999	1.20	0.87	78.3	0.30	0.31	0.19	0.13	70.8	60.7
100,000+	1.11	0.63	59.4	0.19	0.23	0.14	0.08	85.1	81.0
PLANS > 3 YEARS	1.28	0.80	73.3	0.28	0.29	0.18	0.10	69.8	69.2
(Number of Plans)	(31)	(42)	(29)	(41)	(42)	(44)	(31)	(28)	(40)
MODEL									
Staff	1.12	0.82	76.8	0.34	0.28	0.18	0.10	64.8	66.5
Group	1.61	0.74	65.4	0.11	0.33	0.19	0.11	80.2	77.4
SIZE									
0–19,999	1.62	1.54	*	0.74	0.51	0.26	0.10	58.0	76.5
20,000–49,999	1.42	0.81	82.5	0.24	0.27	0.19	0.15	59.8	66.7
50,000–99,999	1.20	0.66	81.4	0.18	0.24	0.17	0.09	67.2	57.8
100,000+	1.11	0.63	59.4	0.19	0.23	0.14	0.08	85.1	81.0

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses the data were trimmed. Values greater than three standard deviations from the mean were excluded. A maximum of seven plans were eliminated using this criteria.
2. In calculating means for OB/GYN, we excluded values of 0 since a number of plans did not provide this specific breakdown and including 0 would distort the mean. Allowing 0 values in the calculation of OB/GYN physician staffing ratios results in means of 0.09 for all plans (n = 43), 0.08 for plans > 3 years (n = 34), and * for plans ≤ 3 years (n = 2).
3. All values in these columns represent percentages.

*Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 4 Distributional Profile of Inpatient Discharges, Days, and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Plan Age, 1989[1]

	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS
ALL PLANS									
Plan Mean	87.3	402	4.6	81.9	355	4.3	219.1	1448	6.6
Plan Median	83.9	386	4.5	78.8	344	4.3	225.0	1472	6.6
25th Percentile	72.3	321	4.1	69.4	301	3.9	168.3	959	5.4
75th Percentile	98.2	459	5.0	92.4	407	4.7	267.4	1906	7.6
Standard Deviation	22.2	125	0.8	20.0	88	0.7	79.2	690	1.7
(Number of Plans)	309	321	322	212	221	219	152	161	157
PLANS > 3 YEARS									
Plan Mean	87.5	405	4.6	81.7	354	4.3	217.3	1438	6.6
Plan Median	83.8	388	4.5	78.6	344	4.3	222.6	1472	6.6
25th Percentile	72.3	321	4.2	69.0	298	3.9	168.6	929	5.4
75th Percentile	99.1	464	5.0	91.4	406	4.7	266.1	1909	7.6
Standard Deviation	22.0	125	0.7	19.3	87	0.6	79.7	692	1.7
(Number of Plans)	268	278	279	187	193	193	141	149	146
PLANS ≤ 3 YEARS									
Plan Mean	86.5	382	4.5	83.2	360	4.4	242.1	1583	6.7
Plan Median	86.0	355	4.2	82.1	337	4.2	238.7	1457	6.2
25th Percentile	72.8	322	3.9	72.8	316	3.8	168.0	1019	5.2
75th Percentile	97.5	452	5.1	97.4	435	5.0	305.1	1830	8.1
Standard Deviation	24.4	126	0.9	25.2	96	1.0	72.5	689	1.6
(Number of Plans)	41	43	43	25	28	26	11	12	11

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold value were excluded from analysis. The threshold for discharges/1000, days/1000, and LOS were five, fifty and one, respectively. A maximum of five plans were eliminated from analysis using these criteria.

Source: GHAA's Annual HMO Industry Survey

Table 5 Mean Inpatient Discharges, Days, and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1]

	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
Selected Characteristics by Plan Age	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**
ALL PLANS	87.3	402	4.6	81.9	355	4.3	219.1	1448	6.6
MODEL									
Staff	84.1	438	4.8	75.0	338	4.4	226.7	1664	7.3
Group	81.8	389	4.8	75.2	340	4.5	205.7	1400	6.6
Network	85.6	394	4.4	76.6	325	4.2	188.5	1200	6.0
IPA	89.6	401	4.5	86.7	369	4.3	231.3	1468	6.5
REGION									
New England	87.0	447	5.1	81.1	402	5.0	261.1	2244	8.7
Middle Atlantic	86.2	426	4.9	83.5	387	4.7	219.5	1556	7.2
South Atlantic	84.6	400	4.7	76.8	351	4.5	216.5	1429	6.7
Midwest	95.7	437	4.6	90.4	380	4.2	245.6	1603	6.7
South Central	87.1	386	4.4	85.9	377	4.5	186.7	1129	6.0
Mountain	81.6	334	4.1	75.4	292	3.9	204.1	1267	6.1
Pacific	73.8	313	4.3	64.7	253	3.9	185.1	1135	6.0
SIZE									
0–19,999	89.2	393	4.4	86.3	371	4.3	205.6	1187	6.0
20,000–49,999	85.2	387	4.4	83.5	354	4.3	194.1	1238	6.0
50,000–99,999	87.9	433	4.9	77.6	344	4.4	235.3	1726	7.3
100,000+	86.6	410	4.7	77.8	342	4.4	240.2	1679	7.0
PLAN AGE									
1–3	86.5	382	4.5	83.2	360	4.4	242.1	1583	6.7
4–7	87.4	398	4.5	84.5	361	4.2	207.9	1279	6.0
8–15	88.2	408	4.6	80.8	347	4.3	216.9	1502	6.9
16+	86.1	426	4.9	76.0	349	4.6	238.5	1678	7.2
TAX STATUS									
Nonprofit	89.6	434	4.8	80.3	362	4.5	219.4	1525	7.0
For-Profit	86.1	384	4.5	82.8	351	4.3	218.9	1397	6.3
QUALIFICATION STATUS									
Federally Qualified	85.4	400	4.7	79.8	346	4.4	224.5	1540	6.7
Non-qualified	90.8	406	4.4	86.3	373	4.3	205.6	1234	6.2
OWNERSHIP									
Blue Cross/Blue Shield	79.4	374	4.6	76.8	340	4.4	219.3	1467	6.4
Commercial Insurer	82.7	364	4.4	84.1	360	4.3	184.7	1096	5.8
National HMO Company	85.8	391	4.5	74.3	310	4.2	232.8	1623	7.1
Independent	91.5	430	4.6	83.8	356	4.3	245.2	1541	6.8
Provider-sponsored	92.6	428	4.6	86.8	394	4.5	227.8	1471	6.6
MULTISTATE ORGANIZATION									
Yes	82.2	378	4.6	77.0	336	4.3	205.0	1352	6.5
No	90.5	417	4.6	84.9	366	4.3	228.1	1507	6.6

Table 5 (continued) Mean Inpatient Discharges, Days, and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1]

Selected Characteristics by Plan Age	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS	Discharges/ 1,000	Days/ 1,000	LOS
PLANS > 3 YEARS	87.5	405	4.6	81.7	354	4.3	217.3	1438	6.6
MODEL									
Staff	84.0	445	4.9	74.0	340	4.4	231.6	1681	7.2
Group	81.8	391	4.8	75.2	340	4.5	205.7	1400	6.6
Network	83.0	387	4.4	75.1	322	4.3	178.1	1092	5.9
IPA	90.7	405	4.5	87.3	369	4.2	230.2	1470	6.6
REGION									
New England	85.9	452	5.2	78.4	394	5.0	261.2	2304	8.9
Middle Atlantic	86.8	434	4.9	86.2	394	4.6	218.2	1580	7.4
South Atlantic	83.0	391	4.6	73.8	340	4.5	212.8	1404	6.7
Midwest	95.1	440	4.6	89.8	380	4.3	243.8	1596	6.6
South Central	88.8	395	4.3	88.0	386	4.4	176.7	1062	6.0
Mountain	82.5	339	4.1	75.0	291	3.9	207.5	1290	6.1
Pacific	75.7	324	4.4	65.9	260	4.0	187.7	1127	5.8
SIZE									
0–19,999	90.3	397	4.4	88.0	371	4.2	203.0	1142	5.9
20,000–49,999	85.1	387	4.5	83.3	358	4.3	190.0	1201	6.0
50,000–99,999	87.9	439	4.9	77.1	345	4.4	233.0	1725	7.4
100,000+	86.6	410	4.7	77.5	340	4.4	239.6	1679	7.0
PLAN AGE									
4–7	87.4	398	4.5	84.5	361	4.2	207.9	1279	6.0
8–15	88.2	408	4.6	80.8	347	4.3	216.9	1502	6.9
16+	86.1	426	4.9	76.0	349	4.6	238.5	1678	7.2
TAX STATUS									
Nonprofit	88.6	434	4.8	79.5	359	4.5	217.9	1509	7.0
For-Profit	86.8	387	4.5	83.1	351	4.2	216.9	1384	6.3
QUALIFICATION STATUS									
Federally Qualified	85.6	401	4.7	79.7	345	4.4	222.0	1527	6.7
Non-qualified	91.6	413	4.5	86.7	374	4.3	205.0	1223	6.3
OWNERSHIP									
Blue Cross/Blue Shield	80.0	378	4.6	76.9	340	4.4	219.3	1467	6.4
Commercial Insurer	84.1	373	4.5	84.6	366	4.4	182.7	1095	5.9
National HMO Company	85.3	386	4.5	74.1	307	4.1	229.4	1578	7.0
Independent	90.9	435	4.7	83.1	353	4.3	227.3	1547	6.8
Provider-sponsored	93.3	431	4.6	87.9	398	4.4	222.4	1443	6.7
MULTISTATE ORGANIZATION									
Yes	83.1	383	4.6	77.3	335	4.3	197.6	1312	6.5
No	90.1	419	4.6	84.4	365	4.3	229.2	1509	6.6
PLANS ≤ 3 YEARS	86.5	382	4.5	83.2	360	4.4	242.1	1583	6.7

Notes:

1. For number of reporting plans and value exclusion rules see Table 4.

Source: GHAA's Annual HMO Industry Survey

Table 6 Distributional Profile of Total Encounters Per Member Per Year and Physician Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Plan Age, 1989[1]

	All Enrollees		Enrollees < 65		Enrollees ≥ 65	
	Total Encounters	**Physician Encounters**	**Total Encounters**	**Physician Encounters**	**Total Encounters**	**Physician Encounters**
ALL PLANS						
Plan Mean	5.1	4.0	4.9	3.9	8.8	6.7
Plan Median	4.7	3.9	4.6	3.8	7.6	5.9
25th Percentile	3.8	3.0	3.6	3.0	5.4	4.5
75th Percentile	6.0	4.9	5.9	4.7	10.6	7.8
Standard Deviation	1.9	1.5	1.8	1.3	5.1	3.6
(Number of Plans)	261	242	176	163	146	133
PLANS > 3 YEARS						
Plan Mean	5.0	4.0	4.9	3.9	8.8	6.6
Plan Median	4.8	3.9	4.7	3.8	7.8	6.2
25th Percentile	3.8	3.1	3.7	3.0	5.4	4.5
75th Percentile	6.0	4.9	5.8	4.7	10.6	7.8
Standard Deviation	1.9	1.4	1.7	1.3	5.0	3.5
(Number of Plans)	225	212	152	145	129	120
PLANS ≤ 3 YEARS						
Plan Mean	5.4	4.1	5.2	4.1	9.1	7.2
Plan Median	4.5	3.6	4.3	3.9	6.6	5.6
25th Percentile	3.7	3.0	3.2	3.0	5.6	4.3
75th Percentile	6.5	4.9	6.3	5.8	8.8	7.6
Standard Deviation	2.3	1.8	2.3	1.7	6.2	4.9
(Number of Plans)	36	30	24	18	17	13

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses, the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold value were excluded. The threshold for total encounters/member/year and physician/member/year was one. A maximum of five plans were eliminated from analysis using these criteria.

Source: GHAA's Annual HMO Industry Survey

Table 7 Mean Total Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1,2]

	All Plans			Plans > 3 Years		
Selected Characteristics	**All Enrollees**	**< 65**	**≥ 65**	**All Enrollees**	**< 65**	**≥ 65**
TOTAL	5.1	4.9	8.8	5.0	4.9	8.8
MODEL						
Staff	5.0	4.5	8.4	5.1	4.6	8.6
Group	5.1	5.1	9.2	5.0	5.1	9.2
Network	4.5	4.2	6.3	4.2	4.2	6.1
IPA	5.2	5.0	9.2	5.1	4.9	9.2
REGION						
New England	4.9	5.0	7.9	4.8	5.0	8.2
Middle Atlantic	5.1	5.3	7.6	5.2	5.4	7.8
South Atlantic	4.8	4.8	9.7	5.0	4.9	10.7
Midwest	5.3	4.9	8.8	5.1	4.8	8.6
South Central	5.4	5.4	9.3	5.3	5.1	8.0
Mountain	4.6	4.5	10.1	4.4	4.1	9.5
Pacific	4.7	4.1	7.9	5.0	4.3	8.2
SIZE						
0–19,999	4.9	4.8	8.0	4.8	4.8	8.3
20,000–49,999	4.9	4.6	8.1	4.8	4.6	8.0
50,000–99,999	5.4	5.2	9.4	5.2	5.0	8.5
100,000+	5.3	5.1	10.1	5.3	5.1	10.3
PLAN AGE						
1–3	5.4	5.2	9.1	–	–	–
4–7	4.9	4.8	8.5	4.9	4.8	8.5
8–15	5.0	4.9	8.9	5.0	4.9	8.9
16+	5.4	5.0	9.3	5.4	5.0	9.3
TAX STATUS						
Nonprofit	4.8	4.7	7.9	4.7	4.6	8.0
For-Profit	5.2	5.0	9.5	5.2	5.0	9.5
QUALIFICATION STATUS						
Federally Qualified	5.0	5.0	9.4	5.0	5.0	9.3
Non-qualified	5.1	4.7	7.7	5.0	4.5	7.6
OWNERSHIP						
Blue Cross/Blue Shield	4.6	4.5	6.8	4.6	4.5	6.8
Commercial Insurer	5.1	5.0	9.3	5.2	5.2	9.9
National HMO Company	5.1	5.0	9.3	4.9	4.7	8.8
Independent	5.1	4.7	8.6	5.1	4.8	8.8
Provider-sponsored	5.3	5.3	9.7	5.1	5.0	9.3
MULTISTATE ORGANIZATION						
Yes	5.0	5.0	9.3	5.1	5.1	9.4
No	5.1	4.9	8.5	5.0	4.7	8.4

Notes:

1. For number of reporting plans and value exclusion rules see Table 6.
2. For Plans ≤ 3 years, the means for total encounters per member per year were 5.4 for all enrollees (n = 36), 5.2 for enrollees < 65 (n = 24) and 9.1 for enrollees ≥ 65 (n = 17).

Source: GHAA's Annual HMO Industry Survey

Table 8 Mean Physician Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1,2]

	All Plans			Plans > 3 Years		
Selected Characteristics	**All Enrollees**	**< 65**	**≥ 65**	**All Enrollees**	**< 65**	**≥ 65**
TOTAL	4.0	3.9	6.7	4.0	3.9	6.6
MODEL						
Staff	3.5	3.1	6.3	3.5	3.2	6.4
Group	3.8	3.7	6.0	3.7	3.7	6.0
Network	3.7	3.3	4.9	3.5	3.2	4.9
IPA	4.2	4.2	7.3	4.3	4.2	7.3
REGION						
New England	3.6	3.7	6.0	3.7	3.7	6.0
Middle Atlantic	3.8	4.0	5.6	3.8	3.9	5.7
South Atlantic	3.8	3.8	6.9	3.8	3.9	7.5
Midwest	4.1	3.9	6.6	4.0	3.8	6.3
South Central	4.3	4.4	7.1	4.3	4.4	6.5
Mountain	3.9	3.7	8.4	3.9	3.6	8.2
Pacific	4.3	3.5	6.9	4.4	3.6	7.0
SIZE						
0–19,999	4.0	4.1	7.2	4.0	4.1	7.4
20,000–49,999	3.9	3.7	5.7	3.9	3.7	5.5
50,000–99,999	4.0	3.9	6.3	3.9	3.7	5.9
100,000+	4.0	3.9	7.5	4.1	3.9	7.7
PLAN AGE						
1–3	4.1	4.1	7.2	–	–	–
4–7	4.0	3.9	6.7	4.0	3.9	6.7
8–15	4.0	3.9	6.2	4.0	3.9	6.2
16+	3.9	3.7	7.3	3.9	3.7	7.3
TAX STATUS						
Nonprofit	3.7	3.7	5.8	3.7	3.7	5.8
For-Profit	4.1	4.0	7.3	4.2	4.0	7.3
QUALIFICATION STATUS						
Federally Qualified	4.0	3.9	6.9	4.0	3.9	6.9
Non-qualified	4.1	3.9	6.3	4.1	3.8	6.1
OWNERSHIP						
Blue Cross/Blue Shield	3.6	3.5	5.3	3.5	3.4	5.3
Commercial Insurer	4.1	4.2	7.2	4.1	4.1	7.4
National HMO Company	3.8	3.5	6.2	3.8	3.5	6.3
Independent	4.1	3.9	6.8	4.0	3.9	6.9
Provider-sponsored	4.2	4.1	7.3	4.2	4.1	6.7
MULTISTATE ORGANIZATION						
Yes	3.9	3.8	6.7	3.9	3.8	6.7
No	4.1	3.9	6.7	4.1	3.9	6.6

Notes:

1. For number of reporting plans and value exclusion rules see Table 6.
2. For Plans ≤ 3 years, the means for physician encounters per member per year were 4.1 for all enrollees (n = 30), 4.1 for enrollees < 65 (n = 18) and 7.2 for enrollees ≥ 65 (n = 13).

Source: GHAA's Annual HMO Industry Survey

Table 9 Mean Percentage of Physician Encounters to Total Encounters for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1,2]

	All Plans			Plans > 3 Years		
Selected Characteristics	**All Enrollees**	**< 65**	**≥ 65**	**All Enrollees**	**< 65**	**≥ 65**
TOTAL	81.1%	81.6%	80.9%	81.4%	81.2%	80.4%
MODEL						
Staff	71.8	73.4	77.8	71.4	72.8	77.1
Group	76.7	75.2	74.6	76.2	75.2	74.6
Network	82.7	83.2	78.7	84.1	80.8	78.7
IPA	84.3	85.5	84.6	85.5	85.7	84.4
REGION						
New England	76.1	77.7	81.3	78.6	76.7	79.9
Middle Atlantic	77.2	80.0	79.9	75.9	77.2	78.8
South Atlantic	82.3	81.5	80.5	82.0	80.7	79.9
Midwest	80.3	82.2	80.5	79.8	81.5	80.1
South Central	83.8	82.8	82.7	86.2	84.0	81.5
Mountain	83.4	81.5	83.4	85.4	84.5	85.7
Pacific	86.0	83.7	79.9	87.0	84.7	80.2
SIZE						
0–19,999	84.5	85.6	86.1	85.9	84.9	84.5
20,000–49,999	82.0	81.8	78.6	82.4	81.7	78.6
50,000–99,999	78.0	80.0	80.9	77.8	79.2	79.9
100,000 +	77.0	77.4	77.4	77.9	78.3	78.8
PLAN AGE						
1–3	78.5	85.0	85.5	–	–	–
4–7	85.3	85.5	83.5	85.3	85.5	83.5
8–15	78.1	78.5	75.7	78.1	78.5	75.7
16 +	74.6	74.9	82.3	74.6	74.9	82.3
TAX STATUS						
Nonprofit	78.5	80.6	81.5	79.0	80.3	81.5
For-Profit	82.6	82.3	80.4	83.1	81.8	79.4
QUALIFICATION STATUS						
Federally Qualified	80.6	80.4	78.8	80.6	80.0	78.7
Non-qualified	82.0	84.3	85.1	83.6	84.1	84.2
OWNERSHIP						
Blue Cross/Blue Shield	80.6	81.0	86.0	79.7	80.2	86.0
Commercial Insurer	84.9	84.5	81.3	83.6	82.9	79.3
National HMO Company	76.9	77.6	77.6	78.5	77.6	77.3
Independent	77.5	81.2	80.2	77.1	79.8	79.6
Provider-sponsored	83.7	81.8	79.8	87.8	84.9	80.4
MULTISTATE ORGANIZATION						
Yes	80.1	79.9	78.5	79.9	79.2	77.6
No	81.7	82.7	82.4	82.5	82.5	82.0

Notes:

1. For number of reporting plans and value exclusion rules see Table 6.
2. For Plans ≤ 3 years, the means for the percentage of physician encounters to total encounters were 78.5% for all enrollees (n = 30), 85.0% for enrollees < 65 (n = 18), and 85.5% for enrollees ≥ 65 (n = 13).

Source: GHAA's Annual HMO Industry Survey

Table 10 Selected Statistics for Medicare and Medicaid Enrollees in Plans by Plan Age, 1989

Selected Statistics	**All Plans (n = 348)**	**Plans > 3 Years (n = 302)**	**Plans ≤ 3 Years (n = 46)**
MEAN PLAN ENROLLMENT	76,272	83,950	25,863
MEDICARE ENROLLMENT **ALL PLANS:**			
Mean number Medicare enrollees	5,587	5,676	4,904
Mean Medicare enrollment as % of total enrollment	4.3	4.6	2.6
% plans with no Medicare enrollment	57.5	55.0	76.7
PLANS WITH MEDICARE ENROLLMENT:			
Mean number Medicare enrollees	13,155	12,620	21,017
Mean Medicare enrollment as % of total enrollment	10.2	10.1	11.1
(Number of plans)	110	103	7
MEDICAID ENROLLMENT **ALL PLANS:**			
Mean number Medicaid enrollees	2,546	2,727	1,167
Mean Medicaid enrollment as % of total enrollment	7.2	6.1	15.6
% plans with no Medicaid enrollment	72.9	73.1	71.9
PLANS WITH MEDICAID ENROLLMENT:			
Mean number Medicaid enrollees	9,405	10,121	4,151
Mean Medicaid enrollment as % of total enrollment	26.9	22.9	55.5
(Number of plans)	75	66	9
MEDICARE AND MEDICAID ENROLLMENT **ALL PLANS:**			
Mean number Medicare and Medicaid enrollees	8,430	8,722	6,148
Mean Medicare and Medicaid enrollment as % of total enrollment	10.7	10.4	13.4
% plans with no Medicare and no Medicaid enrollment	46.2	43.8	64.3
PLANS WITH MEDICARE AND/OR MEDICAID ENROLLMENT:			
Mean number Medicare and Medicaid enrollees	15,657	15,530	17,215
Mean Medicare and Medicaid enrollment as % of total enrollment	20.0	18.5	37.6
(Number of plans)	133	123	10

Source: GHAA's Annual HMO Industry Survey

Table 11 Selected Mean Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Discharges/1000 (n = 89)**	**Days/1000 (n = 93)**	**LOS (n = 94)**	**Discharges/1000 (n = 52)**	**Days/1000 (n = 59)**	**LOS (n = 54)**
ALL PLANS	267.0	1945	7.4	115.6	500	4.3
MODEL						
Staff	272.9	2146	7.8	119.4	513	4.2
Group	241.1	1831	7.6	97.8	496	4.2
Network	286.8	1782	6.5	116.5	528	4.5
IPA	272.6	1952	7.4	120.5	483	4.3
REGION						
New England	278.9	2410	8.7	122.1	598	4.5
Middle Atlantic	253.3	2170	9.2	100.4	484	4.4
South Atlantic	272.3	1995	7.3	120.6	542	4.5
Midwest	267.1	1966	7.4	121.0	504	4.2
South Central	292.8	1692	6.4	*	*	*
Mountain	276.1	1801	6.6	*	*	*
Pacific	245.7	1590	6.4	104.0	406	4.2
SIZE						
0–19,999	262.7	1620	6.8	134.5	577	4.4
20,000–49,999	267.5	1901	7.3	111.5	487	4.3
50,000–99,999	263.4	1967	7.6	86.9	386	4.3
100,000+	270.2	2022	7.5	122.3	527	4.2
PLAN AGE						
1–3	265.5	1779	6.8	118.2	497	4.2
4–7	275.5	1829	6.9	123.8	546	4.4
8–15	275.4	2147	7.8	102.9	427	4.2
16+	242.0	1766	7.5	115.8	513	4.2
TAX STATUS						
Nonprofit	261.5	2003	7.7	116.9	526	4.3
For-Profit	274.0	1877	7.1	112.9	450	4.2
QUALIFICATION STATUS						
Federally Qualified	271.7	1978	7.4	105.9	478	4.3
Non-qualified	233.6	1695	7.4	128.8	533	4.3
OWNERSHIP						
Blue Cross/Blue Shield	250.9	2120	8.5	101.9	432	4.1
Commercial Insurer	279.2	2012	7.9	*	*	*
National HMO Company	270.0	1845	7.0	98.5	401	4.0
Independent	264.5	1970	7.6	119.3	492	4.3
Provider-sponsored	275.7	1868	6.7	125.1	599	4.6
MULTISTATE ORGANIZATION						
Yes	259.6	1831	7.4	105.8	427	4.3
No	272.5	2035	7.5	117.9	519	4.3

Table 11 *(continued)* Selected Mean Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Discharges/1000 (n = 84)	Days/1000 (n = 87)	LOS (n = 89)	Discharges/1000 (n = 46)	Days/1000 (n = 51)	LOS (n = 48)
PLANS > 3 YEARS	267.1	1956	7.5	115.3	501	4.3
MODEL						
Staff	272.9	2146	7.8	124.7	530	4.2
Group	241.1	1831	7.6	97.8	492	4.2
Network	301.5	1786	6.3	108.9	531	4.6
IPA	270.6	1970	7.4	120.3	482	4.3
REGION						
New England	278.9	2410	8.7	119.5	610	4.6
Middle Atlantic	271.1	2326	9.5	96.1	478	4.5
South Atlantic	269.3	1978	7.3	119.5	550	4.7
Midwest	262.8	1947	7.4	121.1	497	4.1
South Central	291.0	1701	6.6	*	*	*
Mountain	276.1	1801	6.6	*	*	*
Pacific	245.7	1590	6.4	108.6	413	4.2
SIZE						
0–19,999	285.6	1657	6.7	143.2	628	4.6
20,000–49,999	260.0	1857	7.2	110.2	465	4.1
50,000–99,999	261.9	1980	7.7	86.9	374	4.3
100,000+	270.2	2031	7.5	122.3	527	4.2
PLAN AGE						
4–7	275.5	1829	6.9	123.8	546	4.4
8–15	275.4	2147	7.8	102.9	427	4.2
16+	242.0	1766	7.5	115.8	513	4.2
TAX STATUS						
Nonprofit	264.3	2025	7.7	115.8	529	4.4
For-Profit	270.8	1872	7.1	114.1	432	4.1
QUALIFICATION STATUS						
Federally Qualified	270.0	1981	7.5	106.5	477	4.2
Non-qualified	242.4	1741	7.4	128.8	541	4.4
OWNERSHIP						
Blue Cross/Blue Shield	250.9	2120	8.5	101.9	432	4.1
Commercial Insurer	279.2	2126	7.9	*	*	*
National HMO Company	267.9	1810	7.0	98.5	401	4.0
Independent	269.9	2011	7.6	119.9	500	4.4
Provider-sponsored	267.0	1810	6.7	125.2	594	4.5
MULTISTATE ORGANIZATION						
Yes	261.8	1874	7.5	104.5	427	4.4
No	270.6	2015	7.4	117.9	519	4.3

Table 11 (continued) Selected Mean Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

Selected Characteristics, by Plan Age	Medicare Discharges/1000 (n = 5)	Medicare Days/1000 (n = 6)	Medicare LOS (n = 5)	Medicaid Discharges/1000 (n = 6)	Medicaid Days/1000 (n = 8)	Medicaid LOS (n = 6)
PLANS ≤ 3 YEARS	265.5	1779	6.8	118.2	497	4.2

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold value were excluded from analysis. The thresholds for discharges/1000, days/1000, LOS, physician encounters/member/year and encounters/member/year were five, fifty, one, one and one, respectively. A maximum of five plans were eliminated from analysis using these criteria.
2. Due to small sample sizes for Medicare and Medicaid data in plans 3 years old or younger, only summary statistics are presented.

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 12 Selected Mean Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Encounters/ Member/Year (n = 70)**	**Phys. Encounters/ Member/Year (n = 61)**	**% Phys. Encounters (n = 61)**	**Encounters/ Member/Year (n = 46)**	**Phys. Encounters/ Member/Year (n = 44)**	**% Phys. Encounters (n = 43)**
ALL PLANS	9.2	7.0	79.1	5.0	3.8	80.2
MODEL						
Staff	8.9	7.1	82.2	4.4	3.1	73.8
Group	9.2	6.2	71.2	5.9	4.8	82.7
Network	6.7	8.0	88.7	4.9	2.4	63.2
IPA	10.2	7.5	82.6	4.9	4.2	88.3
REGION						
New England	7.2	5.9	83.0	4.4	3.6	85.7
Middle Atlantic	10.2	6.7	65.8	4.9	3.4	72.6
South Atlantic	10.8	7.6	77.3	*	2.3	*
Midwest	8.4	7.0	85.6	5.8	4.4	79.9
South Central	9.8	5.4	68.7	*	*	*
Mountain	*	*	*	*	*	*
Pacific	10.9	8.8	83.3	5.4	4.2	77.6
SIZE						
0–19,999	6.8	6.3	81.2	4.5	3.5	81.2
20,000–49,999	8.2	6.2	76.5	5.1	3.9	85.7
50,000–99,999	10.3	7.3	81.5	4.9	3.4	72.7
100,000+	9.6	7.3	78.4	5.7	4.8	83.6
PLAN AGE						
1–3	8.7	*	*	5.8	3.9	70.1
4–7	9.1	7.8	84.5	4.5	3.7	86.5
8–15	9.7	6.8	76.6	4.7	3.6	79.3
16+	8.9	7.0	80.2	6.3	4.5	71.8
TAX STATUS						
Nonprofit	8.2	6.7	80.7	4.9	3.7	79.6
For-Profit	10.6	7.4	76.9	5.3	4.1	81.5
QUALIFICATION STATUS						
Federally Qualified	9.6	7.2	78.7	5.1	3.9	79.0
Non-qualified	7.0	6.0	82.0	4.8	3.7	82.6
OWNERSHIP						
Blue Cross/Blue Shield	8.5	6.6	81.0	3.6	3.1	84.3
Commercial Insurer	11.1	7.5	69.8	*	*	*
National HMO Company	8.6	6.4	77.8	5.5	4.2	79.0
Independent	9.0	7.5	83.4	5.4	3.9	74.0
Provider-sponsored	10.0	6.6	74.1	4.7	3.8	88.2
MULTISTATE ORGANIZATION						
Yes	9.0	6.3	73.4	4.7	3.7	82.2
No	9.4	7.5	83.7	5.1	3.9	79.5

Table 12 *(continued)* Selected Mean Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Encounters/ Member/Year (n = 64)**	**Phys. Encounters/ Member/Year (n = 59)**	**% Phys. Encounters (n = 59)**	**Encounters/ Member/Year (n = 40)**	**Phys. Encounters/ Member/Year (n = 40)**	**% Phys. Encounters (n = 39)**
PLANS > 3 YEARS	9.3	7.1	79.9	4.9	3.8	81.3
MODEL						
Staff	8.9	7.1	82.2	4.5	3.2	74.9
Group	9.2	6.2	71.2	5.6	4.4	80.7
Network	7.4	8.0	88.7	4.2	2.4	65.4
IPA	10.1	8.0	85.3	4.9	4.2	88.3
REGION						
New England	7.2	5.9	83.0	4.2	3.6	85.7
Middle Atlantic	11.2	6.7	65.8	4.8	3.6	77.0
South Atlantic	12.1	8.8	82.4	*	2.3	*
Midwest	8.2	7.0	85.6	5.6	4.2	78.5
South Central	8.0	5.4	68.7	*	*	*
Mountain	*	*	*	*	*	*
Pacific	10.9	8.8	83.3	5.6	4.5	79.6
SIZE						
0–19,999	8.3	6.8	81.1	4.4	3.7	87.5
20,000–49,999	7.9	6.2	76.5	4.9	3.9	85.7
50,000–99,999	9.7	7.3	81.5	4.6	3.0	70.3
100,000+	9.7	7.5	80.1	5.7	4.8	83.6
PLAN AGE						
4–7	9.1	7.8	84.5	4.5	3.7	86.5
8–15	9.7	6.8	76.6	4.7	3.6	79.3
16+	8.9	7.0	80.2	6.3	4.5	71.8
TAX STATUS						
Nonprofit	8.4	6.8	80.7	4.9	3.8	81.1
For-Profit	10.4	7.7	78.8	5.0	3.9	81.6
QUALIFICATION STATUS						
Federally Qualified	9.5	7.3	79.6	5.1	3.9	79.6
Non-qualified	8.0	6.2	82.1	4.4	3.5	85.2
OWNERSHIP						
Blue Cross/Blue Shield	8.5	6.6	81.0	3.6	3.1	84.3
Commercial Insurer	10.9	7.5	69.8	*	*	*
National HMO Company	8.9	6.6	77.5	5.5	4.2	79.0
Independent	9.3	7.5	83.4	5.5	4.1	76.6
Provider-sponsored	9.5	7.2	78.7	4.1	3.3	87.1
MULTISTATE ORGANIZATION						
Yes	9.0	6.6	74.7	4.8	3.8	82.3
No	9.5	7.5	83.7	4.9	3.8	80.9

Table 12 *(continued)* Selected Mean Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Encounters/ Member/Year (n = 6)**	**Phys. Encounters/ Member/Year (n = 2)**	**% Phys. Encounters (n = 2)**	**Encounters/ Member/Year (n = 6)**	**Phys. Encounters/ Member/Year (n = 4)**	**% Phys. Encounters (n = 4)**
PLANS ≤ 3 YEARS	8.7	*	*	5.8	3.9	70.1

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold value were excluded from analysis. The thresholds for discharges/1000, days/1000, LOS, physician encounters/member/year and encounters/member/year were five, fifty, one, one and one, respectively. A maximum of five plans were eliminated from analysis using these criteria.

2. Due to small sample sizes for Medicare and Medicaid data in plans 3 years old or younger, only summary statistics are presented.

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 13 Mean Plan Enrollment and Inpatient Days Per 1,000 by Age and Sex of Member, by Plan Age, 1989[1]

Enrollee and Plan Age	% Enrollees			Days/1,000	
	Total	Male	Female	Male	Female
ALL PLANS					
Total	100.0%	47.4%	52.6%	–	–
< 15	26.7	13.6	13.1	221.3	203.7
15–44	51.7	23.6	28.2	229.8	435.5
45–64	17.0	8.2	8.8	606.0	538.3
65+	4.5	2.0	2.5	1,532.1	1,167.0
(Number of Plans)	(206)	–	–	(75)	(75)
PLANS > 3 YEARS					
Total	100.0	47.4	52.6	–	–
< 15	26.6	13.6	13.0	222.3	204.0
15–44	51.5	23.4	28.1	232.4	432.0
45–64	17.2	8.2	8.9	609.9	535.3
65+	4.7	2.1	2.6	1,542.2	1,179.8
(Number of Plans)	(186)	–	–	(70)	(70)
PLANS ≤ 3 YEARS					
Total	100.0	48.0	52.0	–	–
< 15	27.8	14.1	13.7	207.8	199.4
15–44	53.6	24.9	28.7	193.2	484.8
45–64	15.8	7.6	8.2	550.8	579.4
65+	2.8	1.4	1.4	1,389.4	987.8
(Number of Plans)	(20)	–	–	(5)	(5)

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses, the data were trimmed. Values greater than three standard deviations from the mean or values less than a minimum threshold were excluded. The threshold for days/1000 was 50. A maximum of two plans were trimmed using these criterion.

Source: GHAA's Annual HMO Industry Survey

Table 14 Distribution of Plan Enrollment Among Eight Age and Sex Groups by Selected Plan Characteristics and Plan Age, 1989

Selected Characteristics, by Plan Age	Mean Percent Enrollment							
	Female				Male			
	<15	15–44	45–64	65+	<15	15–44	45–64	65+
ALL PLANS (n = 206)	13.1%	28.2%	8.8%	2.5%	13.6%	23.6%	8.2%	2.0%
MODEL								
Staff	12.8	27.6	8.4	3.7	13.3	23.7	7.7	2.9
Group	12.3	28.7	8.9	2.8	12.7	24.0	8.2	2.4
Network	12.9	27.6	8.6	3.4	13.4	23.6	7.9	2.7
IPA	13.6	28.3	9.0	1.8	14.1	23.4	8.4	1.5
REGION								
New England	12.9	28.9	8.9	2.2	13.4	24.1	7.7	1.9
Middle Atlantic	12.9	27.7	9.4	2.4	13.3	23.1	9.0	2.2
South Atlantic	12.2	30.1	8.9	1.4	12.8	24.9	8.4	1.3
Midwest	13.6	27.9	8.7	2.5	14.1	23.3	8.0	1.9
South Central	13.6	30.2	8.3	0.8	14.2	24.7	7.5	0.8
Mountain	15.0	24.3	8.2	4.2	15.6	21.6	7.6	3.5
Pacific	11.8	26.0	9.4	5.3	12.3	22.6	8.6	3.9
SIZE								
0–19,999	14.1	29.1	8.7	1.3	14.7	23.1	7.7	1.3
20,000–49,999	13.2	28.0	8.8	2.4	13.8	23.6	8.3	1.9
50,000–99,999	12.6	27.8	8.9	3.1	13.0	23.7	8.3	2.5
100,000+	12.3	27.5	9.0	3.4	12.7	23.9	8.5	2.7
PLAN AGE								
1–3	13.7	28.7	8.2	1.4	14.1	24.9	7.6	1.4
4–7	13.8	28.9	8.7	1.3	14.4	23.6	8.1	1.2
8–15	13.0	28.1	8.5	3.1	13.5	23.7	7.8	2.3
16+	11.0	25.9	10.3	5.0	11.4	22.4	9.7	4.2
TAX STATUS								
Nonprofit	13.1	27.1	9.0	3.6	13.6	22.7	8.2	2.8
For-Profit	13.1	28.9	8.7	1.7	13.7	24.3	8.2	1.4
QUALIFICATION STATUS								
Federally Qualified	12.7	28.6	8.7	2.7	13.3	23.8	8.1	2.1
Non-qualified	13.9	27.2	9.1	2.1	14.3	23.1	8.4	1.9
OWNERSHIP								
Blue Cross/Blue Shield	13.1	27.7	9.0	2.2	13.8	23.9	8.5	1.9
Commercial Insurer	12.6	30.6	8.7	0.8	13.3	25.3	8.0	0.8
National HMO Company	12.1	27.2	8.9	4.2	12.4	23.4	8.4	3.4
Independent	13.5	27.2	8.9	2.9	13.9	23.0	8.2	2.4
Provider-sponsored	13.9	27.7	8.8	2.8	14.4	22.3	8.1	2.0
MULTISTATE ORGANIZATION								
Yes	12.5	29.4	8.6	2.1	13.0	24.6	8.0	1.8
No	13.5	27.3	9.0	2.8	14.0	22.9	8.3	2.2

Table 14 (continued) Distribution of Plan Enrollment Among Eight Age and Sex Groups by Selected Plan Characteristics and Plan Age, 1989

Selected Characteristics, by Plan Age	Mean Percent Enrollment							
	Female				Male			
	< 15	15–44	45–64	65 +	< 15	15–44	45–64	65 +
PLANS > 3 YEARS (n = 186)	13.0%	28.1%	8.9%	2.6%	13.6%	23.4%	8.2%	2.1%
MODEL								
Staff	12.8	27.4	8.4	3.9	13.3	23.5	7.7	3.0
Group	12.3	28.7	8.9	2.7	12.7	24.0	8.2	2.3
Network	12.1	27.6	9.0	3.5	12.7	24.0	8.3	2.8
IPA	13.7	28.2	9.0	1.9	14.3	23.0	8.4	1.5
REGION								
New England	12.1	28.4	9.1	2.6	12.7	24.6	8.4	2.1
Middle Atlantic	13.0	27.2	9.5	2.7	13.4	22.7	9.1	2.4
South Atlantic	12.1	30.4	9.0	1.3	12.7	24.7	8.5	1.3
Midwest	13.5	28.1	8.7	2.5	14.1	23.2	8.0	1.9
South Central	13.6	30.0	8.4	0.8	14.2	24.7	7.6	0.8
Mountain	15.0	24.3	8.2	4.2	15.6	21.6	7.6	3.5
Pacific	11.8	26.0	9.4	5.3	12.3	22.6	8.6	3.9
SIZE								
0–19,999	14.1	29.0	8.9	1.5	14.7	22.5	7.9	1.4
20,000–49,999	13.2	28.2	8.8	2.4	13.8	23.6	8.2	1.9
50,000–99,999	12.6	27.8	8.9	3.1	13.0	23.7	8.4	2.5
100,000 +	12.3	27.5	9.0	3.4	12.7	23.9	8.5	2.7
PLAN AGE								
4–7	13.8	28.9	8.7	1.3	14.4	23.6	8.1	1.2
8–15	13.0	28.1	8.5	3.1	13.5	23.7	7.8	2.3
16 +	11.0	25.9	10.3	5.0	11.4	22.4	9.7	4.2
TAX STATUS								
Nonprofit	12.8	27.2	9.0	3.7	13.3	22.8	8.2	2.9
For-Profit	13.2	28.8	8.8	1.7	13.8	24.0	8.3	1.5
QUALIFICATION STATUS								
Federally Qualified	12.7	28.5	8.8	2.7	13.3	23.8	8.1	2.1
Non-qualified	13.9	27.0	9.3	2.3	14.3	22.6	8.6	2.0
OWNERSHIP								
Blue Cross/Blue Shield	13.1	27.7	9.0	2.2	13.8	23.9	8.5	1.9
Commercial Insurer	12.7	30.6	8.6	0.9	13.4	25.0	7.9	0.8
National HMO Company	12.1	27.2	8.9	4.2	12.4	23.4	8.3	3.4
Independent	13.1	27.1	9.2	3.2	13.6	22.9	8.4	2.5
Provider-sponsored	14.1	27.7	8.8	2.7	14.6	21.9	8.1	2.0
MULTISTATE ORGANIZATION								
Yes	12.4	29.4	8.6	2.3	13.0	24.5	8.0	1.9
No	13.4	27.3	9.1	2.8	14.0	22.8	8.4	2.2
PLANS ≤ 3 YEARS (n = 20)	13.7	28.7	8.2	1.4	14.1	24.9	7.6	1.4

Source: GHAA's Annual HMO Industry Survey

Table 15 Mean, Median, and Distribution of Plans for the Percentage of Caesarean Deliveries by Selected Plan Characteristics and Plan Age, 1989[1,2]

Selected Characteristics, by Plan Age	Mean	Median	Distribution of Plans 1–10%	11–15%	16–20%	21–25%	26–30%	31–35%	36+%
ALL PLANS (n = 201)	23.5	23.0	6.0	9.5	18.0	27.5	23.5	9.0	6.5
MODEL									
Staff	20.0	20.0	8.0	28.0	20.0	24.0	12.0	4.0	4.0
Group	22.0	22.5	3.6	10.7	25.0	35.7	17.9	0.0	7.1
Network	21.7	22.0	6.7	10.0	23.3	23.3	26.7	6.7	3.3
IPA	25.0	25.0	6.0	5.1	14.5	27.4	26.5	12.8	7.7
REGION									
New England	21.2	20.5	0.0	1.0	2.5	3.0	0.0	0.0	0.5
Middle Atlantic	22.9	24.5	1.5	1.0	1.5	5.0	5.0	0.5	0.5
South Atlantic	27.3	26.0	0.5	0.0	0.5	5.0	6.0	2.0	1.5
Midwest	22.4	22.0	2.0	4.5	7.5	9.5	5.5	2.5	2.0
South Central	28.2	28.0	0.5	0.0	1.5	1.5	4.0	1.0	2.0
Mountain	19.5	19.0	0.5	1.5	1.0	1.5	0.5	0.5	0.0
Pacific	21.5	21.0	1.0	1.5	3.5	2.0	2.5	2.5	0.0
SIZE									
0–19,999	21.8	22.0	4.5	4.5	3.5	6.5	4.5	2.5	3.0
20,000–49,999	24.6	25.0	0.5	2.0	5.5	7.5	8.5	1.5	2.5
50,000–99,999	25.2	25.5	1.0	0.5	1.5	6.5	6.5	2.0	1.0
100,000+	22.8	22.0	0.0	2.5	7.5	7.0	4.0	3.0	0.0
PLAN AGE									
1–3	21.5	23.0	2.5	0.5	1.0	2.5	3.5	0.5	1.0
4–7	25.1	25.0	2.0	2.5	6.5	12.0	11.0	4.5	4.0
8–15	23.2	23.0	0.5	4.5	4.0	10.0	8.5	1.5	1.0
16+	21.3	20.0	1.0	2.0	6.5	3.0	0.5	2.5	0.5
TAX STATUS									
Nonprofit	21.1	22.0	4.0	6.0	8.0	13.0	5.5	3.5	1.0
For-Profit	25.1	25.0	2.0	3.5	10.0	14.5	18.0	5.5	5.5
QUALIFICATION STATUS									
Federally Qualified	24.5	24.0	1.0	4.5	12.5	19.5	17.5	5.5	4.0
Non-qualified	21.7	22.0	5.0	5.0	5.5	8.0	6.0	3.5	2.5
OWNERSHIP									
Blue Cross/Blue Shield	25.5	25.0	0.0	1.5	1.5	4.5	4.0	0.5	1.5
Commercial Insurer	26.4	25.0	0.5	0.5	2.0	6.0	5.0	1.0	2.5
National HMO Company	23.1	23.0	0.0	1.5	5.0	5.0	4.0	1.0	0.5
Independent	20.1	20.0	4.0	5.5	6.0	7.5	4.0	3.5	0.5
Provider-sponsored	25.1	26.0	1.5	0.5	3.5	4.5	6.5	3.0	1.5
MULTISTATE ORGANIZATION									
Yes	24.7	25.0	1.0	2.0	6.5	12.0	9.0	2.5	3.0
No	22.8	23.0	5.0	7.5	11.5	15.5	14.5	6.5	3.5

Table 15 (continued) Mean, Median, and Distribution of Plans for the Percentage of Caesarean Deliveries by Selected Plan Characteristics and Plan Age, 1989[1,2]

Selected Characteristics, by Plan Age	Mean	Median	Distribution of Plans						
			1–10%	11–15%	16–20%	21–25%	26–30%	31–35%	36+%
PLANS > 3 YEARS (n = 177)	23.7	23.0	4.0	10.2	19.2	28.2	22.6	9.6	6.2
MODEL									
Staff	20.0	20.0	8.0	28.0	20.0	24.0	12.0	4.0	4.0
Group	22.0	22.5	3.6	10.7	25.0	35.7	17.9	0.0	7.1
Network	24.2	23.0	0.0	8.3	25.0	25.0	29.2	8.3	4.2
IPA	25.1	25.0	4.0	6.0	16.0	28.0	25.0	14.0	7.0
REGION									
New England	19.5	20.0	0.0	1.1	2.3	2.8	0.0	0.0	0.0
Middle Atlantic	24.2	25.0	0.6	1.1	1.7	5.1	5.1	0.6	0.6
South Atlantic	28.3	26.0	0.0	0.0	0.6	5.1	5.6	2.3	1.7
Midwest	21.9	22.0	2.3	4.5	7.9	9.6	5.6	2.3	1.7
South Central	29.2	27.5	0.0	0.0	1.7	1.7	3.4	1.1	2.3
Mountain	19.5	19.0	0.6	1.7	1.1	1.7	0.6	0.6	0.0
Pacific	22.6	21.5	0.6	1.7	4.0	2.3	2.3	2.8	0.0
SIZE									
0–19,999	22.5	21.0	2.3	4.5	3.4	5.1	2.8	2.3	2.3
20,000–49,999	24.7	25.0	0.6	2.3	5.6	7.9	8.5	1.7	2.8
50,000–99,999	25.1	25.0	1.1	0.6	1.7	7.3	6.8	2.3	1.1
100,000+	22.8	22.0	0.0	2.8	8.5	7.9	4.5	3.4	0.0
PLAN AGE									
4–7	25.1	25.0	2.3	2.8	7.3	13.6	12.4	5.1	4.5
8–15	23.2	23.0	0.6	5.1	4.5	11.3	9.6	1.7	1.1
16+	21.3	20.0	1.1	2.3	7.3	3.4	0.6	2.8	0.6
TAX STATUS									
Nonprofit	21.6	22.0	3.4	6.2	9.0	13.0	6.2	4.0	1.1
For-Profit	25.4	25.0	0.6	4.0	10.2	15.3	16.4	5.6	5.1
QUALIFICATION STATUS									
Federally Qualified	24.5	24.0	1.1	5.1	13.6	20.9	18.1	6.2	4.5
Non-qualified	22.1	22.0	2.8	5.1	5.6	7.3	4.5	3.4	1.7
OWNERSHIP									
Blue Cross/Blue Shield	25.6	25.0	0.0	1.7	1.7	4.5	4.5	0.6	1.7
Commercial Insurer	26.0	25.0	0.0	0.6	2.3	6.2	4.0	0.6	2.3
National HMO Company	22.9	22.5	0.0	1.7	5.6	5.1	4.0	1.1	0.6
Independent	21.3	23.0	2.8	5.6	6.8	8.5	4.0	4.0	0.6
Provider-sponsored	25.3	26.0	1.1	0.6	2.8	4.0	6.2	3.4	1.1
MULTISTATE ORGANIZATION									
Yes	24.9	24.5	0.0	1.7	7.3	11.9	7.9	2.3	2.8
No	23.2	23.0	4.0	8.5	11.9	16.4	14.7	7.3	3.4
PLANS ≤ 3 YEARS (n = 24)	21.5	23.0	21.7	4.3	8.7	21.7	30.4	4.3	8.7

Notes:

1. The distribution of plans shows the percentage of plans in each category; some rows may not add to 100% due to rounding.
2. For all plans reporting this measure 58.5% were IPAs. The percentage reporting this measure was 12.5%, 14.0%, and 15.0% respectively, for staff, group, and network model plans.

Source: GHAA's Annual HMO Industry Survey

Table 16 Mean, Median, 25th Percentile and 75th Percentile of Gross Enrollment Rate and Disenrollment Rate for All Enrollees by Selected Plan Characteristics and Plan Age, 1989[1]

Selected Characteristics, by Plan Age	Gross Enrollment Rate[2] (n = 229)				Disenrollment Rate[3] (n = 227)			
	Mean	Median	25th	75th	Mean	Median	25th	75th
ALL PLANS	58.5	43.6	27.0	72.4	25.4	24.7	16.8	33.2
MODEL								
Staff	42.6	31.8	22.2	49.6	22.7	20.7	13.4	30.6
Group	49.6	41.1	24.1	63.8	28.6	26.4	20.7	34.7
Network	79.0	41.6	24.4	106.0	23.5	22.5	13.7	32.8
IPA	61.0	45.9	29.1	76.0	25.5	25.5	17.6	32.8
REGION								
New England	73.7	52.0	38.3	93.5	23.8	24.4	21.7	26.9
Middle Atlantic	66.1	41.1	25.5	62.9	20.3	21.8	11.2	28.1
South Atlantic	68.3	49.5	32.6	94.7	28.3	29.7	20.1	35.9
Midwest	46.8	41.8	23.4	56.4	23.7	25.5	14.3	31.8
South Central	51.5	40.8	27.0	63.4	29.5	26.7	19.8	38.4
Mountain	55.3	50.2	20.9	73.3	25.0	24.3	20.8	27.6
Pacific	62.4	57.0	26.9	97.1	26.3	23.7	13.1	36.6
SIZE								
0–19,999	68.7	55.2	25.1	112.9	28.5	27.0	20.1	37.6
20,000–49,999	62.9	48.9	31.2	65.5	24.0	22.7	15.1	32.0
50,000–99,999	44.5	36.3	24.8	58.6	22.8	23.4	16.5	28.9
100,000+	45.8	42.5	25.3	54.6	25.0	23.0	17.9	31.2
PLAN AGE								
1–3	105.5	89.7	56.1	125.1	22.0	21.7	13.1	27.5
4–7	62.2	49.2	28.8	73.3	27.4	27.0	19.8	33.5
8–15	40.1	35.7	22.7	47.7	24.2	22.4	16.4	31.9
16+	34.8	27.7	22.2	46.4	23.4	20.8	13.8	29.5
TAX STATUS								
Nonprofit	52.4	41.0	24.1	63.3	22.0	20.9	14.3	27.8
For-Profit	61.9	47.4	30.1	76.0	27.4	26.8	19.3	34.6
QUALIFICATION STATUS								
Federally Qualified	50.1	41.2	25.0	61.2	26.1	24.5	18.3	33.5
Non-qualified	75.5	56.4	32.9	105.7	24.2	25.7	13.1	32.2
OWNERSHIP								
Blue Cross/Blue Shield	47.7	37.0	22.3	56.4	25.4	25.4	17.1	32.7
Commercial Insurer	56.7	42.7	28.8	73.9	32.2	31.6	22.4	42.4
National HMO Company	58.9	48.7	34.2	85.9	26.0	24.3	19.5	30.3
Independent	55.1	40.1	23.5	77.1	21.3	21.0	12.7	28.2
Provider-sponsored	74.1	62.2	38.6	82.4	22.7	21.7	15.1	29.1
MULTISTATE ORGANIZATION								
Yes	56.5	43.6	29.0	73.6	29.9	27.6	21.7	36.9
No	59.9	43.3	24.7	70.9	22.5	21.3	13.7	31.2

Table 16 *(continued)* Mean, Median, 25th Percentile and 75th Percentile of Gross Enrollment Rate and Disenrollment Rate for All Enrollees by Selected Plan Characteristics and Plan Age, 1989[1]

Selected Characteristics, by Plan Age	Gross Enrollment Rate[2] (n = 202)				Disenrollment Rate[3] (n = 198)			
	Mean	Median	25th	75th	Mean	Median	25th	75th
PLANS > 3 YEARS[4]	52.2	41.4	24.8	63.8	25.9	25.4	17.9	33.5
MODEL								
Staff	39.5	29.0	22.2	49.5	22.2	20.7	13.1	29.5
Group	49.6	41.1	24.1	63.8	28.6	26.4	20.7	34.7
Network	67.4	35.0	24.4	90.9	25.2	22.5	16.3	33.0
IPA	53.6	43.0	27.9	65.8	26.1	25.9	18.4	33.5
REGION								
New England	50.0	46.2	31.9	56.6	25.8	25.2	22.9	27.6
Middle Atlantic	51.4	39.7	25.3	50.1	20.6	21.8	12.6	28.1
South Atlantic	60.2	41.6	27.7	78.3	29.1	30.4	20.8	37.4
Midwest	45.1	41.3	23.3	56.4	24.1	25.9	14.5	32.2
South Central	51.8	41.9	23.3	63.3	29.6	26.8	20.3	39.8
Mountain	55.6	43.0	20.3	81.8	25.6	24.4	22.0	27.9
Pacific	57.9	45.4	25.1	88.4	26.8	24.6	15.3	36.0
SIZE								
0–19,999	55.9	38.8	23.1	85.9	29.8	27.7	20.4	39.9
20,000–49,999	57.7	45.1	30.1	64.0	24.8	24.0	16.9	33.1
50,000–99,999	44.5	37.1	24.5	56.3	23.1	23.4	16.6	29.2
100,000+	45.1	42.0	25.3	54.5	25.1	23.2	17.9	31.2
PLAN AGE								
4–7	62.2	49.2	28.8	73.3	27.4	27.0	19.8	33.5
8–15	40.1	35.7	22.7	47.7	24.2	22.4	16.4	31.9
16+	34.8	27.7	22.2	46.4	23.4	20.8	13.8	29.5
TAX STATUS								
Nonprofit	46.0	37.4	23.4	56.4	21.5	20.5	14.2	27.2
For-Profit	56.0	43.0	28.1	70.3	28.7	29.0	20.8	34.7
QUALIFICATION STATUS								
Federally Qualified	47.8	40.9	24.3	57.4	26.4	24.9	18.3	33.5
Non-qualified	62.8	43.5	25.7	85.9	24.9	26.6	13.9	32.5
OWNERSHIP								
Blue Cross/Blue Shield	41.1	36.1	21.8	54.0	26.4	26.9	18.3	32.8
Commercial Insurer	53.9	41.4	28.1	68.2	34.0	32.7	25.0	42.8
National HMO Company	57.4	48.7	34.2	85.9	26.1	24.3	19.8	29.4
Independent	45.8	33.3	22.4	54.6	21.3	21.0	12.7	28.2
Provider-sponsored	66.2	56.4	36.3	70.3	21.9	21.2	13.0	30.5
MULTISTATE ORGANIZATION								
Yes	53.9	43.0	28.8	63.9	31.1	29.7	23.2	39.8
No	51.1	40.0	24.1	63.3	22.6	21.8	13.8	31.2

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses, the data were trimmed. Values greater than three standard deviations from the mean were excluded. A maximum of 2 plans were excluded using this criterion.
2. This measure was calculated as follows: (Additions to membership in 1989 ÷ total membership year-end 1988) x 100.
3. This measure was calculated as follows: (Termination of membership in 1989 ÷ (total membership year-end 1989 + terminations of membership in 1989).
4. For plans ≤ 3 years, gross enrollment rate and disenrollment rate appear under all plans with plan age of 1–3 years old.

Source: GHAA's Annual HMO Industry Survey

Table 17 Mean, Median, 25th Percentile and 75th Percentile for Net Enrollment Rate and Additions to Terminations Ratio for All Enrollees by Selected Plan Characteristics and Plan Age, 1989[1]

Selected Characteristics, by Plan Age	Net Enrollment Rate[2] (n = 229)				Additions to Terminations Ratio[3] (n = 225)			
	Mean	Median	25th	75th	Mean	Median	25th	75th
ALL PLANS	16.2	10.5	− 5.1	28.6	1.5	1.3	0.9	2.0
MODEL								
Staff	7.3	6.5	− 1.5	16.2	1.4	1.3	0.9	1.5
Group	4.8	5.6	−13.4	22.8	1.3	1.3	0.7	1.6
Network	30.2	16.2	− 1.1	63.6	1.7	1.8	1.0	2.3
IPA	18.9	14.2	− 4.5	35.9	1.6	1.4	0.9	2.1
REGION								
New England	33.9	14.3	1.3	50.6	1.6	1.4	1.0	2.0
Middle Atlantic	31.9	16.7	0.6	38.5	1.8	1.5	1.1	2.6
South Atlantic	18.6	18.3	−11.9	34.8	1.6	1.4	0.8	2.1
Midwest	8.4	6.5	− 2.8	22.2	1.4	1.2	0.9	1.7
South Central	4.8	1.8	−17.0	23.5	1.3	1.0	0.6	1.9
Mountain	16.7	10.5	− 9.4	26.1	1.5	1.4	0.8	2.0
Pacific	16.4	18.7	6.2	37.8	1.6	1.5	1.1	2.4
SIZE								
0–19,999	16.7	10.1	−10.4	36.9	1.5	1.3	0.8	1.9
20,000–49,999	22.7	17.2	− 5.8	32.1	1.7	1.5	0.9	2.3
50,000–99,999	10.7	11.3	− 4.1	22.7	1.5	1.3	0.9	1.8
100,000+	9.2	7.7	− 3.4	16.6	1.3	1.3	0.9	1.9
PLAN AGE								
1–3	57.1	37.0	26.1	72.3	2.3	2.1	1.7	2.8
4–7	15.9	11.1	− 7.7	34.8	1.5	1.3	0.9	1.9
8–15	4.1	6.4	− 7.6	15.8	1.3	1.2	0.8	1.7
16+	2.8	5.1	− 5.5	16.2	1.3	1.3	0.9	1.6
TAX STATUS								
Nonprofit	16.5	11.5	1.9	25.6	1.6	1.4	1.1	1.9
For-Profit	16.1	9.9	−11.2	31.1	1.5	1.3	0.8	2.1
QUALIFICATION STATUS								
Federally Qualified	9.3	8.9	− 9.4	22.8	1.4	1.3	0.8	1.8
Non-qualified	30.2	19.7	1.6	54.6	1.8	1.4	1.1	2.2
OWNERSHIP								
Blue Cross/Blue Shield	9.1	1.3	−11.9	18.7	1.2	1.0	0.6	1.8
Commercial Insurer	5.2	−1.5	−21.3	23.2	1.4	1.0	0.6	1.6
National HMO Company	15.5	16.6	2.0	33.5	1.5	1.5	1.1	2.0
Independent	18.4	11.3	1.9	26.7	1.6	1.4	1.1	2.0
Provider-sponsored	33.8	21.9	6.0	39.1	2.0	1.7	1.2	2.2
MULTISTATE ORGANIZATION								
Yes	8.5	7.9	−14.8	25.6	1.4	1.2	0.7	1.7
No	21.6	11.5	0.6	30.0	1.6	1.4	1.0	2.0

Table 17 *(continued)* Mean, Median, 25th Percentile and 75th Percentile for Net Enrollment Rate and Additions to Terminations Ratio for All Enrollees by Selected Plan Characteristics and Plan Age, 1989[1]

Selected Characteristics, by Plan Age	Net Enrollment Rate[2] (n = 202)				Additions to Terminations Radio[3] (n = 200)			
	Mean	Median	25th	75th	Mean	Median	25th	75th
PLANS > 3 YEARS[4]	10.8	7.3	− 7.7	22.8	1.4	1.3	0.9	1.8
MODEL								
Staff	5.8	5.7	− 1.7	11.7	1.4	1.2	0.9	1.5
Group	4.8	5.6	−13.4	22.8	1.3	1.3	0.7	1.6
Network	23.1	15.7	− 1.1	44.2	1.7	1.5	1.0	2.0
IPA	11.8	8.9	− 6.8	28.0	1.5	1.3	0.9	1.9
REGION								
New England	11.6	8.4	− 3.2	21.2	1.3	1.2	0.9	1.6
Middle Atlantic	20.2	11.1	− 4.1	18.9	1.6	1.5	0.9	1.8
South Atlantic	10.9	6.4	−12.7	27.5	1.4	1.3	0.8	1.9
Midwest	7.2	6.3	− 3.4	20.6	1.4	1.2	0.9	1.7
South Central	4.9	1.9	−18.9	25.1	1.3	1.1	0.6	1.9
Mountain	16.1	6.3	−13.0	27.8	1.5	1.2	0.7	1.8
Pacific	13.9	17.2	3.1	33.4	1.6	1.4	1.1	2.1
SIZE								
0–19,999	5.8	6.6	−15.9	21.7	1.3	1.2	0.7	1.6
20,000–49,999	16.8	12.8	− 8.2	28.9	1.7	1.4	0.9	2.0
50,000–99,999	10.2	9.7	− 5.6	22.2	1.4	1.3	0.9	1.8
100,000 +	8.6	7.5	− 3.4	16.0	1.3	1.3	0.9	1.8
PLAN AGE								
4–7	15.9	11.1	− 7.7	34.8	1.5	1.3	0.9	1.9
8–15	4.1	6.4	− 7.6	15.8	1.3	1.2	0.8	1.7
16 +	2.8	5.1	− 5.5	16.2	1.3	1.3	0.9	1.6
TAX STATUS								
Nonprofit	12.8	9.9	0.1	21.7	1.5	1.4	1.0	1.9
For-Profit	9.6	4.9	−13.4	25.6	1.4	1.1	0.7	1.8
QUALIFICATION STATUS								
Federally Qualified	6.9	7.3	−10.1	21.0	1.4	1.3	0.7	1.8
Non-qualified	20.0	8.4	− 1.4	32.4	1.6	1.3	0.9	1.9
OWNERSHIP								
Blue Cross/Blue Shield	1.8	0.5	−19.3	16.7	1.1	1.0	0.6	1.8
Commercial Insurer	0.1	−7.2	−23.3	20.0	1.2	0.9	0.6	1.4
National HMO Company	14.7	14.2	− 0.6	37.7	1.4	1.5	1.0	2.0
Independent	12.1	10.0	0.6	21.6	1.5	1.4	1.1	1.9
Provider-sponsored	28.8	18.6	6.4	37.8	2.0	1.6	1.2	2.2
MULTISTATE ORGANIZATIONS								
Yes	4.5	1.0	−17.6	21.6	1.3	1.0	0.7	1.6
No	14.9	9.8	− 0.4	25.6	1.5	1.3	1.0	1.9

Notes:

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses, the data were trimmed. Values greater than three standard deviations from the mean were excluded. A maximum of 2 plans were excluded using this criterion.
2. This measure was calculated as follows: [(Additions to membership 1989 − Terminations to membership in 1989) ÷ total membership year-end 1988)] × 100.
3. This measure was calculated as follows: (Additions to membership 1989 ÷ termination of membership in 1989).
4. For plans ≤ 3 years, net enrollment rate and additions to terminations ratio appear under all plans with plan age of 1–3 years old.

Source: GHAA's Annual HMO Industry Survey

Table 18 Mean and Median Gross Enrollment Rate, Disenrollment Rate, Net Enrollment Rate, and Additions to Terminations Ratio for Medicare and Medicaid Enrollees in Plans by Selected Plan Characteristics and Plan Age, 1989[1]

MEDICAID[2]

Selected Characteristics, by Plan Age	Gross Enrollment Rate[3]		Disenrollment Rate[3]		Net Enrollment Rate[3]		Additions to Terminations Ratio[3]	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
ALL PLANS	56.4 (n = 36)	45.2	30.3 (n = 39)	36.0	8.8 (n = 37)	3.7	2.0 (n = 39)	1.1
MODEL								
Staff/Group	45.5	36.1	36.0	37.8	− 8.7	− 5.3	0.8	0.7
Network/IPA	61.3	59.5	28.0	30.9	16.1	7.0	2.4	1.2
SIZE								
0–19,999	65.5	66.7	30.4	32.5	21.5	12.8	1.2	1.2
20,000–49,999	54.0	24.6	25.7	37.9	3.7	4.7	4.3	1.7
50,000–99,999	49.1	49.9	29.8	35.2	1.8	0.5	2.2	1.1
100,000 +	51.8	44.7	34.5	37.0	− 2.0	− 0.4	0.9	0.9
PLAN AGE								
1–3	*	*	32.7	31.6	74.4	80.8	1.9	2.0
4–7	47.9	39.8	28.5	33.2	0.7	2.1	2.4	1.1
8–15	51.6	43.0	28.6	36.6	6.7	2.1	1.7	1.1
16 +	47.9	47.2	37.0	43.2	−10.7	−12.0	1.2	0.9
PLANS > 3 YEARS	49.2 (n = 33)	39.8	30.0 (n = 35)	36.0	0.8 (n = 33)	1.2	2.0 (n = 35)	1.0
PLANS ≤ 3 YEARS	* (n = 3)	*	32.7 (n = 4)	31.6	74.4 (n = 4)	80.8	1.9 (n = 4)	2.0

MEDICARE[2]

Selected Characteristics, by Plan Age	Gross Enrollment Rate[1]		Disenrollment Rate[1]		Net Enrollment Rate[1]		Additions to Terminations Ratio[3]	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
ALL PLANS	27.9 (n = 57)	13.6	18.2 (n = 55)	12.3	0.2 (n = 57)	1.7	1.8 (n = 58)	1.2
MODEL								
Staff/Group	19.6	13.6	11.6	9.2	5.9	3.4	2.0	1.6
Network/IPA	34.0	13.1	23.4	17.3	− 4.0	−3.2	1.7	0.9
SIZE								
0–19,999	45.7	16.8	24.7	14.8	11.8	−0.4	3.5	1.0
20,000–49,999	39.8	14.5	18.5	15.8	14.9	2.9	1.8	1.3
50,000–99,999	14.1	8.7	18.2	15.2	−15.0	−2.8	1.1	0.6
100,000 +	30.7	18.1	16.9	10.1	4.2	3.4	2.0	1.6
PLAN AGE								
1–3	*	*	*	*	*	*	*	*
4–7	38.3	19.2	23.9	18.2	0.7	−5.0	1.7	0.9
8–15	26.2	12.9	15.2	9.0	4.8	2.0	2.1	1.4
16 +	14.5	13.2	9.9	9.3	− 6.6	3.4	1.6	1.5
PLANS > 3 YEARS	27.6 (n = 54)	13.6	17.0 (n = 52)	11.3	1.5 (n = 54)	2.0	1.9 (n = 55)	1.3
PLANS ≤ 3 YEARS	* (n = 3)	*	* (n = 3)	*	* (n = 3)	*	* (n = 3)	*

Notes:

* Data are not shown where cell size is less than 4 plans.

1. To provide a more meaningful statistical characterization of the industry and remove potentially erroneous or incomplete responses, the data were trimmed. Values greater than three standard deviations from the mean were excluded. A maximum of 1 plan was excluded using this criterion.
2. For all plans, medicaid enrollees had 25th percentile and 75th percentile values for the gross enrollment rate, disenrollment rate, net enrollment rate and additions to terminations ratio of 17.3 and 82.8; 21.2 and 39.3; −13.9 and 17.4; and 0.7 and 1.7 respectively. For medicare enrollees, these values were 5.6 and 26.6; 7.5 and 21.8; −10.7 and 7.5; and 0.4 and 2.0 respectively.
3. See Table 16 and Table 17 for definitions of the measures.

Source: GHAA's Annual HMO Industry Survey

Table 19 Standard Deviations for Inpatient Discharges, Days, and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1]

	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
Selected Characteristics, by Plan Age	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**
ALL PLANS	22.2	125	0.8	20.0	88	0.7	79.2	690	1.7
MODEL									
Staff	18.8	150	0.8	16.0	86	0.6	63.7	611	1.8
Group	19.1	101	0.7	17.6	83	0.5	72.0	701	1.7
Network	26.1	165	0.8	21.8	102	0.7	100.8	814	1.5
IPA	22.4	115	0.7	19.8	85	0.7	78.7	667	1.7
REGION									
New England	16.5	96	0.6	17.8	60	0.6	51.2	431	1.3
Middle Atlantic	20.7	123	0.7	14.8	70	0.6	81.6	890	1.8
South Atlantic	21.6	113	0.8	16.0	82	0.6	79.1	712	1.6
Midwest	23.3	136	0.7	21.7	89	0.6	76.6	628	1.6
South Central	17.4	89	0.7	18.6	69	0.6	68.6	533	1.7
Mountain	17.4	103	0.6	13.7	56	0.5	73.9	513	0.8
Pacific	26.1	125	0.8	18.1	66	0.6	85.5	625	1.7
SIZE									
0–19,999	24.5	119	0.8	24.6	107	0.8	93.5	709	2.0
20,000–49,999	21.8	128	0.7	19.1	83	0.6	85.7	763	1.7
50,000–99,999	22.2	148	0.7	16.2	83	0.6	53.3	529	1.4
100,000 +	19.0	106	0.7	15.8	69	0.6	70.4	559	1.2
PLAN AGE									
1–3	24.4	126	0.9	25.2	96	1.0	72.5	689	1.6
4–7	20.9	121	0.7	18.8	88	0.5	76.5	668	1.7
8–15	24.4	135	0.8	20.7	88	0.6	85.8	688	1.6
16 +	20.7	116	0.6	16.2	84	0.6	71.8	686	1.6
TAX STATUS									
Nonprofit	23.2	138	0.8	20.3	94	0.6	70.5	623	1.6
For-Profit	21.6	114	0.7	19.8	85	0.7	85.1	731	1.7
QUALIFICATION STATUS									
Federally Qualified	20.3	124	0.7	17.1	75	0.6	77.2	676	1.6
Non-qualified	25.2	128	0.8	24.6	108	0.7	83.7	684	1.9
OWNERSHIP									
Blue Cross/Blue Shield	17.8	110	0.7	21.4	87	0.6	86.5	878	2.2
Commercial Insurer	21.8	102	0.7	20.0	85	0.6	98.8	751	1.7
National HMO Company	20.9	142	1.0	14.0	69	0.7	67.2	513	1.3
Independent	21.8	131	0.8	21.7	90	0.7	74.1	626	1.5
Provider-sponsored	24.6	126	0.7	18.9	88	0.6	68.8	636	1.7
MULTISTATE ORGANIZATION									
Yes	18.9	116	0.8	15.5	79	0.6	77.8	667	1.6
No	23.6	128	0.7	21.8	91	0.7	79.3	701	1.7

Table 19 (continued) Standard Deviations for Inpatient Discharges, Days, and Length of Stay for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1]

	All Enrollees			Enrollees < 65			Enrollees ≥ 65		
Selected Characteristics by Plan Age	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**	**Discharges/ 1,000**	**Days/ 1,000**	**LOS**
PLANS >3 YEARS	22.0	125	0.7	19.3	87	0.6	79.7	692	1.7
MODEL									
Staff	19.2	151	0.7	15.8	89	0.6	61.4	620	1.7
Group	19.1	102	0.7	17.6	83	0.5	72.0	701	1.7
Network	21.9	151	0.8	16.9	83	0.7	92.8	683	1.5
IPA	22.8	118	0.7	19.4	87	0.6	81.7	687	1.7
REGION									
New England	13.9	100	0.6	9.0	50	0.4	55.3	427	1.2
Middle Atlantic	20.3	128	0.7	14.1	66	0.6	84.5	916	1.8
South Atlantic	21.9	112	0.7	13.1	80	0.5	80.1	709	1.6
Midwest	23.4	135	0.7	22.1	92	0.6	75.5	594	1.6
South Central	16.3	89	0.6	16.7	65	0.4	64.4	518	1.8
Mountain	17.9	105	0.7	14.0	57	0.5	76.5	531	0.9
Pacific	26.1	123	0.8	16.8	55	0.6	86.8	640	1.5
SIZE									
0–19,999	24.0	121	0.8	22.6	105	0.6	98.9	721	2.0
20,000–49,999	21.6	122	0.6	19.6	86	0.6	82.5	727	1.7
50,000–99,999	22.8	151	0.7	16.5	85	0.6	53.5	545	1.4
100,000+	19.0	106	0.7	15.9	69	0.6	71.1	566	1.2
PLAN AGE									
4–7	20.9	121	0.7	18.8	88	0.5	76.5	668	1.7
8–15	24.4	135	0.8	20.7	88	0.6	85.8	688	1.6
16+	20.7	116	0.6	16.2	84	0.6	71.8	686	1.6
TAX STATUS									
Nonprofit	23.0	139	0.7	19.6	94	0.6	70.1	615	1.6
For-Profit	21.3	112	0.7	19.1	83	0.6	86.8	743	1.7
QUALIFICATION STATUS									
Federally Qualified	20.3	122	0.7	17.5	77	0.6	77.2	679	1.6
Non-qualified	25.0	132	0.7	22.6	107	0.6	85.8	683	1.9
OWNERSHIP									
Blue Cross/Blue Shield	18.2	112	0.7	21.7	90	0.6	86.5	878	2.2
Commercial Insurer	22.3	106	0.6	19.4	87	0.5	100.2	779	1.7
National HMO Company	21.3	137	0.9	14.2	70	0.6	68.0	497	1.3
Independent	20.4	132	0.8	19.2	76	0.7	73.6	632	1.4
Provider-sponsored	24.7	122	0.6	18.8	94	0.5	67.0	607	1.8
MULTISTATE ORGANIZATION									
Yes	19.6	118	0.8	16.0	82	0.5	78.1	679	1.6
No	22.9	127	0.7	20.6	89	0.6	78.7	692	1.7
PLANS ≤ 3 YEARS	24.4	126	0.9	25.2	96	1.0	72.5	689	1.6

Note:

1. For the number of reporting plans and value exclusion rules see Table 4.

Source: GHAA's Annual HMO Industry Survey

Table 20 Standard Deviations for Total Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1,2]

	All Plans			Plans > 3 Years		
Selected Characteristics	**All Enrollees**	**< 65**	**≥ 65**	**All Enrollees**	**< 65**	**≥ 65**
TOTAL	1.9	1.8	5.1	1.9	1.7	5.0
MODEL						
Staff	1.6	1.5	3.0	1.6	1.5	3.1
Group	1.8	1.7	5.1	1.7	1.7	5.1
Network	1.8	1.1	2.2	1.4	1.1	2.2
IPA	2.1	1.9	5.8	2.0	1.8	5.7
REGION						
New England	1.7	1.5	4.1	1.8	1.6	4.3
Middle Atlantic	1.6	1.8	4.7	1.7	1.9	4.7
South Atlantic	1.9	1.8	6.3	[illegible]	1.9	6.6
Midwest	2.1	1.8	4.8	[illegible]	1.5	4.7
South Central	2.5	2.1	6.0	2.6	1.9	4.3
Mountain	1.6	1.9	5.9	1.4	1.5	6.1
Pacific	1.4	1.0	3.3	1.3	1.0	3.4
SIZE						
0–19,999	2.0	1.9	4.7	1.9	1.7	4.8
20,000–49,999	2.1	1.8	5.0	2.1	1.8	5.2
50,000–99,999	1.8	1.9	6.2	1.7	1.7	5.4
100,000+	1.7	1.5	4.6	1.7	1.4	4.6
PLAN AGE						
1–3	2.3	2.3	6.2	–	–	–
4–7	2.1	1.8	5.2	2.1	1.8	5.2
8–15	1.7	1.6	5.3	1.7	1.6	5.3
16+	1.4	1.3	4.0	1.4	1.3	4.0
TAX STATUS						
Nonprofit	1.9	1.7	4.7	1.8	1.7	4.7
For-Profit	2.0	1.8	5.4	1.9	1.6	5.2
QUALIFICATION STATUS						
Federally Qualified	1.8	1.7	5.3	1.8	1.6	5.1
Non-qualified	2.2	1.9	4.6	2.0	1.7	4.6
OWNERSHIP						
Blue Cross/Blue Shield	1.5	1.6	4.5	1.5	1.6	4.5
Commercial Insurer	2.1	1.8	5.5	2.1	1.6	5.7
National HMO Company	1.7	1.7	5.0	1.5	1.4	3.6
Independent	1.9	1.6	4.3	1.9	1.6	4.5
Provider-sponsored	2.1	2.2	6.1	2.1	2.1	6.1
MULTISTATE ORGANIZATION						
Yes	2.1	1.8	5.4	2.0	1.6	5.0
No	1.8	1.8	5.0	1.8	1.7	5.0

Notes:

1. For number of reporting plans and value exclusion rules see Table 6.
2. For plans ≤ 3 years, the standard deviations for total encounters per member per year were 2.3 for all enrollees (n = 36), 2.3 for enrollees < 65 (n = 24), and 6.2 for enrollees ≥ 65 (n = 17).

Source: GHAA's Annual HMO Industry Survey

Table 21 Standard Deviations for Physician Encounters Per Member Per Year for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1,2]

	All Plans			Plans > 3 Years		
Selected Characteristics	**All Enrollees**	**< 65**	**≥ 65**	**All Enrollees**	**< 65**	**≥ 65**
TOTAL	1.5	1.3	3.6	1.4	1.3	3.5
MODEL						
Staff	1.4	1.2	2.2	1.4	1.3	2.4
Group	1.4	1.2	2.1	1.3	1.2	2.1
Network	1.7	1.0	2.3	1.3	1.0	2.3
IPA	1.4	1.3	4.3	1.4	1.2	4.2
REGION						
New England	1.1	0.9	2.8	1.0	1.0	3.1
Middle Atlantic	1.2	1.1	2.6	1.2	1.1	2.6
South Atlantic	1.6	1.5	4.2	1.6	1.5	4.5
Midwest	1.6	1.3	3.0	1.4	1.1	2.4
South Central	1.6	1.7	4.4	1.7	1.8	3.6
Mountain	1.2	1.1	5.4	1.2	1.1	5.8
Pacific	1.3	0.8	3.3	1.3	0.8	3.4
SIZE						
0–19,999	1.5	1.4	4.0	1.3	1.3	4.0
20,000–49,999	1.5	1.4	3.1	1.6	1.4	3.1
50,000–99,999	1.5	1.1	3.6	1.4	1.0	2.8
100,000+	1.4	1.3	3.5	1.3	1.2	3.4
PLAN AGE						
1–3	1.8	1.7	4.9	–	–	–
4–7	1.5	1.3	4.1	1.5	1.3	4.1
8–15	1.3	1.2	3.1	1.3	1.2	3.1
16+	1.4	1.2	2.7	1.4	1.2	2.7
TAX STATUS						
Nonprofit	1.4	1.3	2.1	1.3	1.3	2.1
For-Profit	1.5	1.3	4.3	1.5	1.3	4.2
QUALIFICATION STATUS						
Federally Qualified	1.4	1.3	3.8	1.4	1.3	3.6
Non-qualified	1.6	1.3	3.3	1.4	1.2	3.0
OWNERSHIP						
Blue Cross/Blue Shield	1.1	1.1	2.5	1.0	1.0	2.5
Commercial Insurer	1.6	1.5	4.3	1.6	1.4	4.5
National HMO Company	0.9	0.7	1.4	1.0	0.7	1.3
Independent	1.4	1.1	2.9	1.4	1.1	3.0
Provider-sponsored	1.7	1.7	5.0	1.6	1.6	4.5
MULTISTATE ORGANIZATION						
Yes	1.5	1.3	3.7	1.4	1.3	3.4
No	1.5	1.4	3.6	1.4	1.3	3.5

Notes:

1. For number of reporting plans and value exclusion rules see Table 6.
2. For Plans ≤ 3 years, the standard deviations for physician encounters per member per year were 1.8 for all enrollees (n = 30), 1.7 for enrollees < 65 (n = 18), and 4.9 for enrollees ≥ 65 (n = 13).

Source: GHAA's Annual HMO Industry Survey

Table 22 Standard Deviations for Percentage of Physician Encounters to Total Encounters for All Enrollees, Enrollees Under 65, and Elderly Enrollees by Selected Plan Characteristics and Plan Age, 1989[1,2]

	All Plans			Plans > 3 Years		
Selected Characteristics	**All Enrollees**	**< 65**	**≥ 65**	**All Enrollees**	**< 65**	**≥ 65**
TOTAL	18.7	17.5	17.6	18.0	17.3	17.5
MODEL						
Staff	19.4	18.3	14.3	19.6	18.6	14.8
Group	19.2	18.9	18.6	19.2	18.9	18.6
Network	16.1	13.7	20.2	12.6	13.6	20.2
IPA	17.9	16.2	17.0	16.4	15.3	16.5
REGION						
New England	18.9	16.3	12.2	15.5	16.9	12.7
Middle Atlantic	21.7	21.8	21.5	21.0	21.8	21.5
South Atlantic	19.4	20.0	18.8	18.8	19.9	17.4
Midwest	18.7	15.6	18.9	18.9	15.7	19.0
South Central	18.4	18.3	17.4	16.6	17.0	18.1
Mountain	15.4	15.5	11.3	13.7	13.2	10.0
Pacific	12.5	13.1	14.1	12.1	12.8	14.6
SIZE						
0–19,999	18.9	16.7	13.9	17.8	16.5	14.6
20,000–49,999	17.2	18.3	21.3	16.7	18.2	21.8
50,000–99,999	20.3	18.2	17.8	20.0	18.5	18.2
100,000+	17.8	16.6	16.4	16.9	15.9	14.6
PLAN AGE						
1–3	23.0	19.8	18.6	–	–	–
4–7	16.5	15.9	18.1	16.5	15.9	18.1
8–15	18.4	17.6	18.9	18.4	17.6	18.9
16+	19.6	17.7	11.2	19.6	17.7	11.2
TAX STATUS						
Nonprofit	18.3	16.6	15.7	17.9	16.7	15.9
For-Profit	18.8	18.2	18.9	17.9	17.8	18.8
QUALIFICATION STATUS						
Federally Qualified	18.6	17.4	18.4	18.3	17.2	18.0
Non-qualified	18.9	17.7	15.3	17.1	17.3	15.9
OWNERSHIP						
Blue Cross/Blue Shield	18.7	19.6	14.7	18.9	19.6	14.7
Commercial Insurer	17.8	16.1	17.4	18.3	16.3	17.2
National HMO Company	16.7	15.9	17.6	15.6	16.3	1[illegible].1
Independent	19.3	17.2	17.1	19.0	17.4	17.5
Provider-sponsored	19.0	19.5	20.6	15.0	17.4	20.1
MULTISTATE ORGANIZATION						
Yes	19.1	17.9	19.2	18.7	17.7	18.5
No	18.4	17.3	16.4	17.5	17.0	16.8

Notes:
1. For number of reporting plans and value exclusion rules see Table 6.
2. For Plans ≤ 3 years, the standard deviations for percentage of physician encounters to total encounters were 23.0 for all enrollees (n = 30), 19.8 for enrollees < 65 (n = 18), and 18.6 for enrollees ≥ 65 (n = 13).

Source: GHAA's Annual HMO Industry Survey

Table 23 Standard Deviations for Selected Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

Selected Characteristics, by Plan Age	Medicare			Medicaid		
	Discharges/1,000 (n = 89)	Days/1,000 (n = 93)	LOS (n = 94)	Discharges/1,000 (n = 52)	Days/1,000 (n = 59)	LOS (n = 54)
ALL PLANS	66.7	621	1.6	34.7	215	0.9
MODEL						
Staff	59.5	510	1.6	46.3	237	0.4
Group	38.5	431	1.4	39.1	274	0.9
Network	119.8	759	1.8	33.0	236	1.1
IPA	60.2	707	1.5	27.5	172	1.0
REGION						
New England	34.5	339	1.3	21.7	235	1.0
Middle Atlantic	66.6	971	1.5	45.3	347	0.9
South Atlantic	64.4	649	1.4	46.6	219	1.5
Midwest	51.4	511	1.2	30.3	134	0.6
South Central	112.3	253	1.9	*	*	*
Mountain	86.9	539	0.7	*	*	*
Pacific	71.5	560	1.2	36.1	166	1.1
SIZE						
0–19,999	86.3	946	1.2	34.1	282	1.0
20,000–49,999	107.6	724	2.2	35.3	200	0.9
50,000–99,999	42.1	444	1.5	29.6	177	1.0
100,000+	60.7	601	1.4	24.4	136	0.7
PLAN AGE						
1–3	111.7	920	1.4	23.8	121	0.8
4–7	87.2	656	1.6	41.2	275	1.1
8–15	52.9	603	1.5	29.9	167	0.7
16+	43.5	415	1.6	30.6	179	0.8
TAX STATUS						
Nonprofit	49.3	539	1.6	37.9	235	1.0
For-Profit	84.1	705	1.5	28.1	164	0.6
QUALIFICATION STATUS						
Federally Qualified	64.5	619	1.6	32.0	247	1.0
Non-qualified	75.5	609	1.5	34.6	156	0.8
OWNERSHIP						
Blue Cross/Blue Shield	30.7	451	1.7	27.1	186	0.9
Commercial Insurer	85.3	662	1.2	*	*	*
National HMO Company	84.4	639	1.9	44.9	197	1.0
Independent	63.5	673	1.4	34.9	227	0.8
Provider-sponsored	65.4	587	1.1	30.1	196	1.0
MULTISTATE ORGANIZATION						
Yes	77.9	714	1.7	41.0	266	1.3
No	57.2	526	1.5	33.2	199	0.8

Table 23 (continued) Standard Deviations for Selected Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Discharges/1,000 (n = 84)**	**Days/1,000 (n = 87)**	**LOS (n = 89)**	**Discharges/1,000 (n = 46)**	**Days/1,000 (n = 51)**	**LOS (n = 48)**
PLANS >3 YEARS	64.1	601	1.6	36.1	227	0.9
MODEL						
Staff	59.5	510	1.6	45.8	239	0.4
Group	38.5	431	1.4	39.1	288	0.9
Network	106.6	540	1.9	41.6	316	1.1
IPA	62.2	728	1.6	28.2	176	1.0
REGION						
New England	34.5	339	1.3	22.0	249	1.1
Middle Atlantic	32.7	846	1.1	47.1	367	1.0
South Atlantic	68.9	679	1.4	53.7	253	1.7
Midwest	47.9	461	1.2	32.0	134	0.5
South Central	121.2	269	2.0	*	*	*
Mountain	86.9	539	0.7	*	*	*
Pacific	71.5	560	1.2	36.4	182	1.1
SIZE						
0–19,999	48.2	910	1.2	35.3	320	1.1
20,000–49,999	108.1	688	2.3	37.1	207	0.8
50,000–99,999	42.0	447	1.4	29.6	178	1.0
100,000+	61.5	606	1.4	24.4	136	0.7
PLAN AGE						
4–7	87.2	656	1.6	41.2	275	1.1
8–15	52.9	603	1.5	29.9	167	0.7
16+	43.5	415	1.6	30.6	179	0.8
TAX STATUS						
Nonprofit	41.7	496	1.6	39.3	243	1.0
For-Profit	86.0	708	1.5	28.6	169	0.5
QUALIFICATION STATUS						
Federally Qualified	64.7	615	1.6	32.4	253	1.0
Non-qualified	56.1	426	1.6	38.3	173	0.8
OWNERSHIP						
Blue Cross/Blue Shield	30.7	451	1.7	27.1	186	0.9
Commercial Insurer	85.3	647	1.2	*	*	*
National HMO Company	86.0	636	1.9	44.9	197	1.0
Independent	55.4	633	1.4	37.3	246	0.9
Provider-sponsored	67.1	545	1.0	31.4	209	0.9
MULTISTATE ORGANIZATION						
Yes	75.0	710	1.7	43.3	294	1.1
No	56.2	510	1.5	34.3	208	0.8

Table 23 (continued) Standard Deviations for Selected Inpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Discharges/1,000 (n = 5)**	**Days/1,000 (n = 6)**	**LOS (n = 5)**	**Discharges/1,000 (n = 6)**	**Days/1,000 (n = 8)**	**LOS (n = 6)**
PLANS ≤ 3 YEARS	111.7	920	1.4	23.8	121	0.8

Notes:

1. For value exclusion rules see Table 11.
2. Due to small sample sizes for Medicare and Medicaid data in plans three years old or younger only summary statistics are presented.

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

Table 24 Standard Deviations for Selected Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Encounters/ Member/Year (n = 70)**	**Phys. Encounters/ Member/Year (n = 61)**	**% Physician Encounters (n = 61)**	**Encounters/ Member/Year (n = 46)**	**Phys. Encounters/ Member/Year (n = 44)**	**% Physician Encounters (n = 43)**
ALL PLANS	4.4	2.8	17.4	2.1	1.8	18.3
MODEL						
Staff	2.9	2.5	9.6	2.5	2.0	18.7
Group	3.7	1.6	20.0	1.9	1.6	14.8
Network	4.4	4.1	10.1	1.9	0.4	21.8
IPA	5.6	3.4	18.6	2.1	1.7	14.1
REGION						
New England	4.2	2.8	10.8	1.8	1.6	11.8
Middle Atlantic	5.9	2.8	21.2	2.2	1.8	24.4
South Atlantic	5.9	3.9	18.6	*	0.9	*
Midwest	2.5	2.4	15.6	2.5	2.1	20.0
South Central	5.8	1.3	23.3	*	*	*
Mountain	*	*	*	*	*	*
Pacific	2.0	2.0	11.3	1.1	1.2	13.2
SIZE						
0–19,999	4.3	3.3	3.4	1.8	1.4	17.5
20,000–49,999	3.7	3.1	21.7	2.4	1.9	21.0
50,000–99,999	4.5	1.9	19.5	2.7	2.1	21.9
100,000+	4.5	3.0	16.8	1.7	1.4	10.4
PLAN AGE						
1–3	6.8	*	*	1.8	2.9	25.9
4–7	4.9	3.5	16.4	2.3	1.7	14.9
8–15	4.6	2.5	17.4	2.0	1.6	16.6
16+	2.6	2.1	15.5	1.7	1.9	22.6
TAX STATUS						
Nonprofit	3.4	2.3	12.7	2.2	1.8	17.8
For-Profit	5.1	3.3	22.7	2.1	1.8	19.8
QUALIFICATION STATUS						
Federally Qualified	4.4	2.8	17.3	2.2	1.8	17.4
Non-qualified	3.5	2.3	19.0	2.0	1.8	20.2
OWNERSHIP						
Blue Cross/Blue Shield	3.2	2.4	19.9	1.4	1.7	17.1
Commercial Insurer	5.7	4.6	24.3	*	*	*
National HMO Company	4.1	1.4	17.9	1.9	1.1	14.1
Independent	4.4	2.8	9.9	2.1	1.8	19.0
Provider-sponsored	4.9	3.6	24.8	2.1	1.9	18.9
MULTISTATE ORGANIZATION						
Yes	5.0	2.5	20.1	2.4	1.8	11.5
No	3.9	2.9	13.6	2.0	1.8	20.4

Table 24 (continued) Standard Deviations for Selected Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Encounters/ Member/Year (n=64)**	**Phys. Encounters/ Member/Year (n=59)**	**% Physician Encounters (n=59)**	**Encounters/ Member/Year (n=40)**	**Phys. Encounters/ Member/Year (n=40)**	**% Physician Encounters (n=39)**
PLANS >3 YEARS	4.2	2.7	16.6	2.2	1.7	17.5
MODEL						
Staff	2.9	2.5	9.6	2.7	2.1	19.5
Group	3.7	1.6	20.0	1.8	1.0	14.5
Network	4.4	4.1	10.1	2.2	0.5	21.8
IPA	5.4	3.2	15.4	2.1	1.7	14.1
REGION						
New England	4.2	2.8	10.8	1.8	1.6	11.8
Middle Atlantic	5.3	2.8	21.2	2.4	1.9	22.1
South Atlantic	5.8	3.3	11.5	*	0.9	*
Midwest	2.5	2.4	15.6	2.5	1.9	20.8
South Central	3.8	1.3	23.3	*	*	*
Mountain	*	*	*	*	*	*
Pacific	2.0	2.0	11.3	1.1	1.1	12.9
SIZE						
0–19,999	4.0	3.4	3.8	2.1	1.5	10.9
20,000–49,999	3.9	3.1	21.7	2.4	1.9	21.0
50,000–99,999	3.8	1.9	19.5	2.6	1.6	21.3
100,000+	4.5	2.8	14.4	1.7	1.4	10.4
PLAN AGE						
4–7	4.9	3.5	16.4	2.3	1.7	14.9
8–15	4.6	2.5	17.4	2.0	1.6	16.6
16+	2.6	2.1	15.5	1.7	1.9	22.6
TAX STATUS						
Nonprofit	3.3	2.3	12.9	2.2	1.8	16.5
For-Profit	5.0	3.2	21.2	2.1	1.5	20.2
QUALIFICATION STATUS						
Federally Qualified	4.3	2.7	16.2	2.2	1.8	17.5
Non-qualified	3.0	2.3	20.3	2.0	1.3	17.5
OWNERSHIP						
Blue Cross/Blue Shield	3.2	2.4	19.9	1.4	1.7	17.1
Commercial Insurer	6.4	4.6	24.3	*	*	*
National HMO Company	4.1	1.3	18.6	1.9	1.1	14.1
Independent	4.2	2.8	9.9	2.3	1.9	18.2
Provider-sponsored	4.1	3.3	21.3	1.7	1.3	19.6
MULTISTATE ORGANIZATION						
Yes	4.5	2.3	19.1	2.5	1.8	12.0
No	3.9	2.9	13.6	2.1	1.7	19.4

Table 24 (continued) Standard Deviations for Selected Outpatient Utilization Statistics for Medicare and Medicaid Enrollees in Plans, by Selected Plan Characteristics and Plan Age, 1989[1,2]

	Medicare			Medicaid		
Selected Characteristics, by Plan Age	**Encounters/ Member/Year (n – 6)**	**Phys. Encounters/ Member/Year (n – 2)**	**% Physician Encounters (n – 2)**	**Encounters/ Member/Year (n – 6)**	**Phys. Encounters/ Member/Year (n – 4)**	**% Physician Encounters (n – 4)**
PLANS ≤ 3 YEARS	6.8	*	*	1.8	2.9	25.9

Notes:

1. For value exclusion rules see Table 12.
2. Due to small sample sizes for Medicare and Medicaid data in plans three years old or younger only summary statistics are presented.

* Data are not shown where cell size is less than four plans.

Source: GHAA's Annual HMO Industry Survey

APPENDICES

Table A-1 Response Rates to GHAA's Fourth Annual Industry Survey by Selected Plan Characteristics, 1989–1990.[1]

	Response Rate (%)							Enrollment Response Rate		
								%Response		
Selected Characteristics	**Number Surveyed**[2]	**Number Responding**	**All Plans**	**>3**	**≤3**	**Total Enrollment**	**Respondent Enrollment**	**All plans**	**>3**	**≤3**
TOTAL	552	372	67.4	70.2	52.8	34,556,700	27,966,705	80.9	82.0	54.5
MODEL[3]										
Staff	60	45	75.0	76.8	50.0	4,381,373	3,997,253	91.2	91.5	72.4
Group	77	59	76.6	78.4	33.3	10,365,008	10,007,192	96.5	96.8	33.2
Network	82	58	70.7	72.3	64.7	5,071,842	4,196,051	82.7	83.9	50.2
IPA	333	210	63.1	66.0	50.8	14,738,477	9,766,209	66.3	67.1	55.2
REGION										
New England	39	28	71.8	77.8	58.3	2,552,788	2,264,223	88.7	91.5	47.4
Middle Atlantic	68	47	69.1	69.8	66.7	4,763,421	3,128,515	65.7	66.0	60.9
Midwest	170	114	67.1	67.6	63.6	8,296,128	6,348,207	76.5	77.0	64.8
South Atlantic	90	58	64.4	68.0	46.7	3,806,271	2,968,454	78.0	78.6	66.5
South Central	69	47	68.1	72.1	37.5	2,548,788	2,014,687	79.0	82.4	25.3
Mountain	41	30	73.2	76.5	57.1	2,124,892	1,840,228	86.6	87.9	63.3
Pacific	75	48	64.0	70.8	20.0	10,464,412	9,402,391	89.9	90.4	11.9
SIZE										
0–19,999	213	127	59.6	62.8	52.3	2,135,756	1,308,751	61.3	63.3	54.7
20,000–49,999	171	109	63.7	65.1	54.5	5,376,171	3,466,296	64.5	65.8	54.9
50,000–99,999	79	62	78.5	79.2	50.0	5,653,675	4,496,105	79.5	80.1	51.5
100,000+	68	57	83.8	83.8	–	9,578,641	8,220,545	85.8	85.8	–
250,000+	21	17	81.0	81.0	–	11,812,457	10,475,008	88.7	88.7	–
PLAN AGE										
2–3	89	47	52.8	–	52.8	1,299,303	708,400	54.5	–	54.5
4–7	272	177	65.1	65.1	–	9,188,324	6,215,919	67.7	67.7	–
8–15	125	96	76.8	76.8	–	11,642,761	9,394,762	80.7	80.7	–
16–25	49	38	77.6	77.6	–	4,729,897	3,986,209	84.3	84.3	–
26+	17	14	82.4	82.4	–	7,696,415	7,661,415	99.5	99.5	–
GHAA MEMBERS										
Member	274	212	77.4	78.8	68.4	22,686,123	20,489,589	90.3	90.7	71.1
Non-member	278	160	57.6	61.2	41.2	11,870,577	7,477,116	63.0	64.3	45.3
TAX STATUS										
Nonprofit	193	136	70.5	73.5	47.8	18,654,438	16,326,781	87.5	88.0	52.4
For-profit	359	236	65.7	68.3	54.5	15,902,262	11,639,924	73.2	74.5	55.0
QUALIFICATION STATUS										
Federally Qualified	304	231	76.0	76.8	65.0	26,366,682	22,497,622	85.3	85.6	36.6
Non-qualified	248	141	56.9	59.8	68.1	8,190,018	5,469,083	66.8	69.1	88.1

Notes:

1. This analysis is based on information provided by plans for *GHAA's National Directory of HMOs*, 1990 ed. Enrollment and plan characteristics are as of December 31, 1989.
2. Plans surveyed include all HMOs operational as of January 1, 1990.
3. Represents predominate model type as designated by plan.

RESPONDENTS TO THE GHAA ANNUAL HMO INDUSTRY SURVEY

AV-MED Health Plan (Miami, FL)
AmeriMed (Burbank, CA)
American Health Care Providers / American HMO (Flossmoor, IL)
American Health Network HMO of Florida (Jacksonville, FL)
Arizona Health Plan, Inc. / Phoenix IPA (Phoenix, AZ)
Baptist Medical System HMO, Inc. (Little Rock, AR)
Bay Pacific Health Plan (San Bruno, CA)
Bay State Health Care, Inc. (Cambridge, MA)
Blue Care Network - Health Central (Lansing, MI)
Blue Care Network of Southeast Michigan (Southfield, MI)
Blue Care Network of East Michigan (Saginaw, MI)
Blue Care Network, Great Lakes (Grand Rapids, MI)
Blue Choice (St. Louis, MO)
BlueLincs HMO (Tulsa, OK)
CAC-Ramsay (Coral Gables, FL)
CIGNA Health Network Inc. (Dallas, TX)
CIGNA Health Plan MidAtlantic (Columbia, MD)
CIGNA Healthplan of California, Inc. (Glendale, CA)
CIGNA Healthplan of Connecticut (East Hartford, CT)
CIGNA Healthplan of Massachusetts, Inc. (Springfield, MA)
CIGNA Healthplan of Arizona - Phoenix (Phoenix, AZ)
CIGNA Healthplan of Arizona, Inc. - Tucson (Tucson, AZ)
CIGNA Healthplan of Colorado, Inc. (Denver, CO)
CIGNA Healthplan of Florida, Inc. - Maitland (Maitland, FL)
CIGNA Healthplan of Florida, Inc. - Tampa (Tampa, FL)
CIGNA Healthplan of Illinois (Des Plaines, IL)
CIGNA Healthplan of Kansas City (Kansas City, MO)
CIGNA Healthplan of Louisiana, Inc. (Baton Rouge, LA)
CIGNA Healthplan of North Louisiana (Shreveport, LA)
CIGNA Healthplan of Northern California (Oakland, CA)
CIGNA Healthplan of Northern New Jersey, Inc. (Paramus, NJ)
CIGNA Healthplan of Ohio, Inc. Cleveland (Cleveland, OH)
CIGNA Healthplan of Ohio, Inc. Columbus (Columbus, OH)
CIGNA Healthplan of Southern Florida (Miami Lakes, FL)
CIGNA Healthplan of St. Louis (Clayton, MO)
CIGNA Healthplan of Texas (Irving, TX)
CIGNA Healthplan of Texas, Inc. - Houston Division (Houston, TX)
CIGNA Healthplan of Washington Inc. (Seattle, WA)
CIGNA Private Practice Plan (Glendale, CA)
CaliforniaCare (Woodland Hills, CA)
Capital District Physicians' Health Plan (Albany, NY)

Capitol Health Care (Salem, OR)
Care Choices Health Plans / Mercy Alternative (Farmington Hill, MI)
CareAmerica Health Plans, Inc. (Chatsworth, CA)
CareChoice - Chattanooga (Chattanooga, TN)
Carlecare (Urbana, IL)
Carolina Physicians Health Plan, Inc. (Raleigh, NC)
Central Massachusetts Health Care, Inc. (Worcester, MA)
Central Medical Health Plan (Pittsburgh, PA)
Central Minnesota Group Health Plan (St. Cloud, MN)
Chicago HMO Ltd. (Chicago, IL)
ChoiceCare (Cincinnati, OH)
ChoiceCare - Long Island (Uniondale, NY)
Coastal Bend Health Plan (Corpus Christi, TX)
Columbia Medical Plan, Inc. (Columbia, MD)
Community Blue, HMO of Blue Cross of Western New York, Inc. (Buffalo, NY)
Community Choice Health Plan, Inc. (Two Rivers, WI)
Community Health Care Plan (New Haven, CT)
Community Health Group (Chula Vista, CA)
Community Health Plan (W. Springfield, MA)
Community Health Plan (Latham, NY)
Community Health Plan (Cincinnati, OH)
Community Health Plan (Burlington, VT)
Community Health Plan - L.A. County Dept. of Health Services (Los Angeles, CA)
Community Health Plan of the Mary Imogene Bassett Hospital (Cooperstown, NY)
Companion Health Care Corp. (Columbia, SC)
Compcare Health Services Insurance Corporation (Milwaukee, WI)
Complete Health, Inc. (Birmingham, AL)
Comprecare, Inc. (Aurora, CO)
Comprehensive Health Services Inc. (Detroit, MI)
ConnectiCare, Inc. (Farmington, CT)
Constitution Health Network (Meriden, CT)
Contra Costa Health Plan (Martinez, CA)
D.C. Chartered Health Plan, Inc. (Washington, DC)
DAKOTACARE (Sioux Falls, SD)
DeanCare HMO (Middleton, WI)
Delaware Valley HMO (Concordville, PA)
Delmarva Health Care Plan, Inc. (Easton, MD)
Deseret Healthcare (Salt Lake City, UT)
Dreyer HMO (Aurora, IL)
EQUICOR Health Plan (Chicago, IL)
EQUICOR Health Plan (Overland Park, KS)
EQUICOR Health Plan (Oklahoma City, OK)
EQUICOR Health Plan (Memphis, TN)
EQUICOR Health Plan (Brentwood, TN)
EQUICOR Health Plan Of Utah, Inc. (Salt Lake City, UT)
EQUICOR Health Plan of California, Inc. (San Diego, CA)
EQUICOR Health Plan of Florida Inc. (St. Petersburg, FL)

EQUICOR Health Plan, Inc. (Wichita, KS)
EQUICOR Health Plan, Inc. (Salina, KS)
EQUICOR Health Plan, Inc. (Raleigh, NC)
EQUICOR Health Plan, Inc. (Houston, TX)
EQUICOR Health Plan, Inc. (Glen Allen, VA)
EQUICOR Health Plan, Inc. (Virginia Beach, VA)
Eau Claire Health Protection Plan (Wausau, WI)
Educators Health Care, Inc. (Murray, UT)
Employees Choice Health Option (Salt Lake City, UT)
Employer's Health Care Plan (Green Bay, WI)
Exclusive HealthCare, Inc. (Omaha, NE)
FHP Of New Mexico, Inc. (Albuquerque, NM)
FHP, Inc. (Tempe, AZ)
FHP, Inc. (Cerritos, CA)
FHP, Inc. (Tamuning, GU)
FHP, Inc. (Utah Region) (Salt Lake City, UT)
FIRSTSOURCE, Inc. (Albuquerque, NM)
Fallon Community Health Plan (West Boylston, MA)
Family Health Plan (Des Moines, IA)
Family Health Plan (Toledo, OH)
Family Health Plan Cooperative (Elm Grove, WI)
Family Health Plan Corporation (Newton, KS)
Family Health Plan, Inc. (Miami Lakes, FL)
Florida First Health Plan (Winter Haven, FL)
Florida Health Care Plan, Inc. (Daytona Beach, FL)
Foundation Health Plan (Rancho Cordova, CA)
Foundation Health Plan (FHP) (Endwell, NY)
Free State Health Plan, Inc. (Timonium, MD)
Freedom Health Care (Wayne, PA)
Garden State Health Plan (Trenton, NJ)
Geisinger Health Plan (Danville, PA)
George Washington University Health Plan, Inc. (Washington, DC)
Golden Bay Health Plan (San Francisco, CA)
Grand Valley Health Plan (Grand Rapids, MI)
Greater Amarillo Health Plan Inc. (Amarillo, TX)
Greater Atlantic Health Service, Inc. (Philadelphia, PA)
Greater Wisconsin Rapids Health Protection Plan (Wausau, WI)
Green Bay Health Protection Plan (Wausau, WI)
Group Health (Rochester, NY)
Group Health Association, Inc. (Washington, DC)
Group Health Cooperative of Eau Claire (Eau Claire, WI)
Group Health Cooperative of Puget Sound (Seattle, WA)
Group Health Cooperative of South Central Wisconsin (Madison, WI)
Group Health Northwest (Spokane, WA)
Group Health Plan, Inc. (St. Louis, MO)
Group Health, Inc. (Minneapolis, MN)
Guam Memorial Health Plan (GMHP) (Agana, GU)

Gulf South Health Plans, Inc. (Baton Rouge, LA)
HEALS, Personal Care Physician Health Plan (Emeryville, CA)
HEALTH OPTIONS, INC. (Jacksonville, FL)
HIP Network of Florida, Inc. (Ft. Lauderdale, FL)
HIP of New Jersey-A Division of HIP / Rutgers Health Plan (Robbinsville, NJ)
HMO America - Indiana, Inc. (Chicago, IL)
HMO Arizona (Phoenix, AZ)
HMO Arkansas, Inc. (Little Rock, AR)
HMO Colorado (Denver, CO)
HMO Georgia (Atlanta, GA)
HMO Health Ohio / BC & BS of Ohio (Cleveland, OH)
HMO Iowa (Des Moines, IA)
HMO Kansas, Inc. (Topeka, KS)
HMO Kentucky, Inc. (Louisville, KY)
HMO Minnesota (St. Paul, MN)
HMO Nebraska, Inc. (Omaha, NE)
HMO Rhode Island (Providence, RI)
HMO Virginia, Inc. (Richmond, VA)
HMO Washington (Seattle, WA)
HMO of Northeastern PA (Wilkes-Barre, PA)
HMO of Wisconsin Insurance Corporation (Prairie du Sac, WI)
Harris Health Plan (Fort Worth, TX)
Harvard Community Health Plan (Brookline, MA)
Hawaii Medical Services Assn / Community Health Program (Honolulu, HI)
Health Alliance Plan of Michigan (Detroit, MI)
Health Care Plan, Inc. (Buffalo, NY)
Health Insurance Plan of Greater New York (New York, NY)
Health Maintenance Plan (Cincinnati, OH)
Health Maintenance of Indiana / Key Health Plan (Indianapolis, IN)
Health Net (Van Nuys, CA)
Health Network of Colorado Springs, Inc. (Colorado Spring, CO)
Health New England (Springfield, MA)
Health Plan Hawaii (Honolulu, HI)
Health Plan of Nevada, Inc. - Las Vegas (Las Vegas, NV)
Health Plan of the Upper Ohio Valley, Inc. (St. Clairsville, OH)
Health Power of Columbus / Family HealthNet of Ohio (Columbus, OH)
Health Power of Dayton, Inc. (Columbus, OH)
Health Services Medical Corp. Slocum Dickson Medical Network (Baldwinsville, NY)
Health Services Medical Corp. (Baldwinsville, NY)
HealthAmerica Corporation of Pennsylvania (Pittsburgh, PA)
HealthAmerica of Pennsylvania, Inc. (Camp Hill, PA)
HealthCare, Inc. (North Haven, CT)
HealthChicago, Inc. (Lisle, IL)
HealthGuard Services, Inc. / SelectCare (Eugene, OR)
HealthGuard of Lancaster Inc. (Lancaster, PA)
HealthKeepers of Virginia, Inc. (Richmond, VA)
HealthOhio, Inc. (Marion, OH)

HealthPlus (Seattle, WA)
HealthPlus, Inc. (Riverdale, MD)
HealthWays, Inc. (Iselin, NJ)
HealthWise (Lexington, KY)
HealthWise (Salt Lake City, UT)
Healthcare Delaware (Wilmington, DE)
Healthshield (Poughkeepsie, NY)
Healthsource Maine (Yarmouth, ME)
Healthsource South Carolina (Charleston, SC)
Heart of America HMO (Rugby, ND)
Heritage Health Plan of South Florida (Miami, FL)
Heritage National Health Plan, Inc. (Davenport, IA)
HomeTown Hospital Health Plan (Massillon, OH)
Humana Health Care Plan - Lexington (Lexington, KY)
Humana Health Plan Inc. (Louisville) (Louisville, KY)
Humana Health Plan of TX, Inc. - Humana HP Corpus Christi (Corpus Christi, TX)
Humana Medical Plan Inc. (South Florida) (Miami, FL)
IHC Care, Inc. (Salt Lake City, UT)
Illinois Masonic Community Health Plan (Chicago, IL)
Independent Health (Tarrytown, NY)
Independent Health Association (Buffalo, NY)
Independent Health of Pennsylvania (Erie, PA)
Independent Prepaid Health Plan (Baldwinsville, NY)
Intergroup Prepaid Health Services of Arizona, Inc. (Tucson, AZ)
JMH Health Plan (Miami, FL)
Johns Hopkins Health Plan (Baltimore, MD)
Kaiser Foundation Health Plan of Colorado (Denver, CO)
Kaiser Foundation Health Plan of Georgia, Inc. (Atlanta, GA)
Kaiser Foundation Health Plan of Kansas City, Inc. (Shawnee Mission, KS)
Kaiser Foundation Health Plan of Mid-Atlantic States, Inc. (Washington, DC)
Kaiser Foundation Health Plan of North Carolina (Raleigh, NC)
Kaiser Foundation Health Plan of Ohio (Cleveland, OH)
Kaiser Foundation Health Plan of Texas (Dallas, TX)
Kaiser Foundation Health Plan of the Northwest (Portland, OR)
Kaiser Foundation Health Plan, Inc. - Hawaii Region (Honolulu, HI)
Kaiser Foundation Health Plan, Inc. - N. California Region (Oakland, CA)
Kaiser Foundation Health Plan, Inc. - Southern CA Region (Pasadena, CA)
Kaiser Foundation Health Plan, Inc. - Northeast Region (Hartford, CT)
Keystone Health Plan East, Inc. (Bala-Cynwyd, PA)
Keystone Health Plan West, Inc. (Pittsburgh, PA)
Lake Shore HMO (Holland, MI)
Licking Memorial Hospital Health Plan (Newark, OH)
Lincoln National Health Plan (Woodland Hills, CA)
Lincoln National Health Plan (Fort Wayne, IN)
Lincoln National Health Plan (Overland Park, KS)
Lincoln National Health Plan (South Portland, ME)
Lincoln National Health Plan (Bethesda, MD)
Lincoln National Health Plan (St. Louis, MO)

Lincoln National Health Plan, Inc. (Phoenix, AZ)
Lincoln National Health Plan, Inc. (Boise, ID)
Lincoln National Health Plan, Inc. (Cincinnati, OH)
Lovelace Health Plan, Inc. (Albuquerque, NM)
M-Care (Ann Arbor, MI)
M.D. Health Plan (New Haven, CT)
M.D. Individual Practice Association, Inc. (Rockville, MD)
MIT Health Plan (Cambridge, MA)
MagnaCare Health Plan (Cincinnati, OH)
Matthew Thornton Health Plan (Nashua, NH)
Maxicare (Southern California) (Los Angeles, CA)
Maxicare North Carolina, Inc. (Charlotte, NC)
Maxicare South Carolina, Inc. (Greenville, SC)
Med Connect HMO of Illinois Inc. (Hinsdale, IL)
MedCare (Maywood, IL)
Medical Associates Health Plan, Inc. (Dubuque, IA)
Medical Center Health Plan (Pensacola, FL)
Medical West Community Health Plan, Inc. (Framingham, MA)
Medigroup, Inc. (Cranford, NJ)
Mercy Health Plan (Philadelphia, PA)
Metropolitan Health Plan / HMO (New York, NY)
Michael Reese Health Plan,Inc. (Chicago, IL)
Mid-Ohio Health Care Plan / Health One (Columbus, OH)
Mobile Health Plan (Mobile, AL)
Mohawk Valley Physicians Health Plan (Schenectady, NY)
NWNL Health Network, Inc. (St. Paul, MN)
National Med (Modesto, CA)
Neighborhood Health Plan Inc. (Dorchester, MA)
Network Health Plan (Mercer Island, WA)
North Central Health Protection Plan (Wausau, WI)
North Med HMO, Inc. (Traverse City, MI)
Ochsner Health Plan of New Orleans (Metairie, LA)
OmniCare Health Plan (Detroit, MI)
Optima Health Plan (Norfolk, VA)
PACC Health Plans, Inc. (Clackamas, OR)
PCA Health Plan of Texas (Austin, TX)
PCA Health Plans (Sacramento, CA)
PHN-HMO, Inc. (Baltimore, MD)
PacifiCare of California (Cypress, CA)
PacifiCare of Texas, Inc. (San Antonio, TX)
Pacific Health (Seattle, WA)
Paramount Health Care (Toledo, OH)
Patient's Choice, Inc. (Syracuse, NY)
Peak Health Plan of Colorado (Denver, CO)
Personal Physician Care of Ohio, Inc. (Cleveland, OH)
PersonalCare Insurance of Illinois, Inc. (Champaign, IL)
Physician and Patient Association, Inc. (Houston, TX)
Physicians Health Network (Evansville, IN)

Physicians Health Plan of Mid-Michigan (Lansing, MI)
Physicians Health Plan of Minnesota (Minneapolis, MN)
Physicians Health Plan of North Carolina, Inc. (Greensboro, NC)
Physicians Health Plan of Northern Indiana (Fort Wayne, IN)
Physicians Health Plan of Ohio, Inc. (Columbus, OH)
Physicians Health Plan of South Carolina (Columbia, SC)
Physicians Health Plan of Utah (Salt Lake City, UT)
Physicians Health Plan of West Michigan (Muskegon, MI)
Physicians Health Service of Connecticut, Inc. (Trumbull, CT)
Physicians Health Services (HMO), Inc. (Evansville, IN)
Physicians Health Services of New York, Inc. (White Plains, NY)
Physicians Plus HMO (Madison, WI)
Pilgrim Health Care, Inc. (Norwell, MA)
Premier Health Plan (Philadelphia, PA)
PrimeCare Health Plan, Inc. (Milwaukee, WI)
Principal HealthCare of Nebraska, Inc. (Omaha, NE)
PruCare of Washington, DC (Bethesda, MD)
Prudential Health Care Plan Inc. - PruCare of Connecticut (Norwalk, CT)
Prudential Health Care Plan Inc. - PruCare of New Jersey (Parsippany, NJ)
Prudential Health Care Plan Inc. - PruCare of New York (Hauppauge, NY)
Prudential Health Care Plan Inc. - PruCare of Philadelphia (Horsham, PA)
Prudential Health Care Plan Inc. - PruCare of South FL. (Ft. Lauderdale, FL)
Prudential Health Care Plan - PruCare Of Tampa Bay (Tampa, FL)
Prudential Health Care Plan, Inc. - PruCare of Atlanta (Atlanta, GA)
Prudential Health Care Plan, Inc. - PruCare of Austin (Austin, TX)
Prudential Health Care Plan, Inc. - PruCare of Central Ohio (Columbus, OH)
Prudential Health Care Plan, Inc. - PruCare of Charlotte (Charlotte, NC)
Prudential Health Care Plan, Inc. - PruCare of Cincinnati (Cincinnati, OH)
Prudential Health Care Plan, Inc. - PruCare of Houston (Houston, TX)
Prudential Health Care Plan, Inc. - PruCare of Illinois (Rosemont, IL)
Prudential Health Care Plan, Inc. - PruCare of Kansas City (Kansas City, MO)
Prudential Health Care Plan, Inc. - PruCare of Memphis (Memphis, TN)
Prudential Health Care Plan, Inc. - PruCare of Nashville (Nashville, TN)
Prudential Health Care Plan, Inc. - PruCare of North Texas (Dallas, TX)
Prudential Health Care Plan, Inc. - PruCare of Ok. City (Oklahoma City, OK)
Prudential Health Care Plan, Inc. - PruCare of Orlando (Maitland, FL)
Prudential Health Care Plan, Inc. - PruCare of Richmond (Richmond, VA)
Prudential Health Care Plan, Inc. - PruCare of San Antonio (San Antonio, TX)
Prudential Health Care Plan, Inc. - PruCare of St. Louis (Creve Coeur, MO)
Prudential Health Care Plan, Inc. - PruCare of Tulsa (Tulsa, OK)
Prudential Health Care System - PruCare of Jacksonville (Jacksonville, FL)
Qual-Med, Inc. (Monte Vista, CO)
Qual-Med - New Mexico Health Plan (Albuquerque, NM)
Qual-Med - Oregon Health Plan (Portland, OR)
Qual-Med - Washington Health Plan (Bellevue, WA)
Rhode Island Group Health Association, Inc. / RIGHA (Providence, RI)
Riverside Health Plan (Bridgewater, PA)

Rochester Area HMO, Inc. (Rochester, NY)
Rutgers Community Health Plan- Div. Of HIP / Rutgers HealthPlan (Somerset, NJ)
Samaritan Health Plan (Phoenix, AZ)
Samaritan Health Plan Insurance Corporation (Milwaukee, WI)
Sanus Health Plan, Inc. (St. Louis, MO)
Sanus New York Life Health Plan - Houston (Houston, TX)
Sanus Texas Health Plan, Inc. - Dallas/Fort Worth (Irving, TX)
Scan Health Plan (Long Beach, CA)
Scott and White Health Plan (Temple, TX)
Security Health Plan of WI (Marshfield, WI)
SelectCare MedExtend, Inc. (Troy, MI)
Sentara Health Plan (Norfolk, VA)
Share Health Plan (Bloomington, MN)
Share Health Plan of Nebraska, Inc. (Omaha, NE)
Share Health Plan of Illinois, Inc. (Itasca, IL)
Southern Colorado Health Plan, Inc. (Pueblo, CO)
Southern Health Services (Richmond, VA)
St. Louis Labor Health Institute (St. Louis, MO)
Suburban Health Plan, Inc. (Shelton, CT)
TakeCare Corporation (Concord, CA)
Tennessee 1st, Inc. Healthplan (Knoxville, TN)
The Bronx Health Plan (Bronx, NY)
Total Health Care (Kansas City, MO)
Total Health Care, Inc. (Baltimore, MD)
Total Health Network of Iowa (Des Moines, IA)
Travelers Health Network - Dallas/Ft. Worth (Richardson, TX)
Travelers Health Network - Houston Division (Houston, TX)
Travelers Health Network of Austin, Inc. (Austin, TX)
Travelers Health Network of Ca., Inc. - Sacramento/Fresno (Sacramento, CA)
Travelers Health Network of Louisiana (Metairie, LA)
Travelers Health Network of New York, Inc. - Syracuse Div. (Syracuse, NY)
Travelers Health Network of New York,Inc.-Metropolitan Div (White Plains, NY)
Travelers Health Network of Texas, Inc. - San Antonio Div. (San Antonio, TX)
Travelers Health Network of Virginia, Inc. (Norfolk, VA)
Tufts Associated Health Plan (Waltham, MA)
Union Health Service, Inc. (Chicago, IL)
United Health Plan (Inglewood, CA)
United Health Plan (Columbus, OH)
University Health Maintenance Organization, Inc. (Cincinnati, OH)
University of Illinois HMO / Plan Trust (Chicago, IL)
VIP Health Plan / Ventura County HMO (Oxnard, CA)
Valley Health Plan (San Jose, CA)
ValuCare (Fresno, CA)
Welborn HMO (Evansville, IN)
West Alabama Health Services, Inc. (Eutaw, AL)
Western Ohio Health Care Plan (Dayton, OH)
Wisconsin Health Organization Insurance Corporation, Inc. (Milwaukee, WI)

HMO INDUSTRY PROFILE

VOLUME 3: FINANCIAL PERFORMANCE, 1989

by

Susan J. Palsbo, M.S. and
Marsha Gold, Sc.D.

1991 Edition

Data from the Group Health Association of America's
Annual HMO Industry Survey

June 1991

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VOLUMES IN THE SERIES

Volume 1: Benefits, Premiums, and Market Structure in 1990
Volume 2: Physician Staffing (1990) and Utilization Patterns (1989)
Volume 3: Financial Performance, 1989

Each volume incorporates analysis of both current characteristics and trends.

PREFACE

The landscape of the health care environment is undergoing dramatic change. Once viewed as alternative delivery systems, HMOs now are becoming the dominant system in some communities and for some employer groups. Moreover, the concepts HMOs represent are increasingly reflected throughout the entire health care system as purchasers aim to identify how best to contain costs and maintain quality, and society attempts to address the needs of the 31 to 37 million Americans who lack health insurance coverage.

Under these circumstances, it is critical that information and analysis be available so that the experience of the most successful models of managed care can be understood. For this reason, the Group Health Association of America, Inc. (GHAA), the oldest and largest trade association representing prepaid managed health care systems, initiated the Annual HMO Industry Survey. *The HMO Industry Profile* is the major vehicle through which data from this survey are distributed.

This year's series of reports presents the results of GHAA's fifth Annual HMO Industry Survey. In its multiple volumes, the report provides information on a number of dimensions of HMO organization, performance, and trends, including benefits, premiums, market structure, utilization rates, and financial measures. Each volume incorporates analysis of both current characteristics and trends.

These reports provide the most comprehensive and detailed set of information on HMOs available, with a range of information virtually unsurpassed by that developed by any other segment of the health care industry. The reports reflect the efforts of GHAA's Research and Analysis Department under its Director, Marsha Gold, Sc.D.

The reports would have been impossible to produce without extensive industry cooperation. The considerable time devoted by plans to provide data is particularly impressive given today's competitive climate and economic pressures.

Developing a statistical base for any industry is a long-term process. We continue to make improvements in the content and format of the Survey and *Profile* based on feedback from our members and the broad spectrum of other users of the reports. We have been encouraged that the range of information provided has been useful to a diverse set of audiences and welcome further suggestions as we proceed with this effort.

James Doherty
President and CEO
Group Health Association
of America, Inc.

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Professor Sam Shapiro of Johns Hopkins University provided advice on survey methods, as he has from the initiation of this project. We are particularly grateful to him for his continuing interest and support for this project and for his contribution to it.

As always, we wish to thank all the HMOs that responded to the survey, taking time to collate from across their organizations the requested statistics. Without the support of the industry, this report would not exist.

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June 1991

HIGHLIGHTS

The 1991 edition of this *HMO Industry Profile* is based on the Group Health Association of America's fifth Annual Health Maintenance Organization (HMO) Industry Survey. The mail survey was sent to all HMOs operational on or before January 1, 1989. Findings in this volume are for financial performance in 1989. The volume presents detailed financial information and analyses based on respondents' year-end financial statements.

The total number of plans responding to the survey was 372. They represent 67% of all surveyed HMOs and 81% of the national enrollment. The subset of 277 plans submitting the financial data upon which this volume is based enrolled 24.0 million members on December 31, 1989. This subset represents 50% of all surveyed HMOs and 52% of plans in operation more than 3 years ("established plans") in 1989; their members include 69% of the national enrollment in all surveyed plans in 1989. *The findings in these highlights refer to established plans.* With the maturation of the industry, an increasingly larger share of all plans were in this category in 1989.

Overview of Industry Performance

- The 1989 financial position of the HMO industry improved greatly. Sixty-six percent of plans reported gross profits in 1989, compared to 46% in 1988 and 38% in 1987, the low point in recent years' performance. Increased revenues and improved cost controls were the two most commonly cited factors underlying improved performance in 1989.
- Based on estimates from submitted data, the HMO industry as a whole gained $0.23 billion before taxes on $38.3 billion in revenues in 1989. This 0.6% gain compares to aggregate losses of about -4.2% in both 1988 and 1987.
- Values for 9 of the 10 Solvency Surveillance Indicators (developed by NAIC/NAHMOR) improved in 1989, with all improvements statistically significant. This suggests that industry-wide improvements in financial performance in 1989 were not restricted to profitability measures, but extend into a variety of areas of operational performance. In comparison, the 1988 data also showed improvements, but these were more limited, generally focusing on profitability measures.
- Preliminary studies indicate that improvements in financial performance continued in 1990.

Revenue Sources and Expenses

- Plans' mean revenue per member per month was $92.30 in 1989. On average, 87.5% of plan revenue was from premiums, 7.9% from Medicare and Medicaid, and the balance from copayments, coordination of benefits, and other sources.
- Plans' mean expense per member per month was $88.73 in 1989. Of this, 33.1% was for hospitalizations, 54.3% for medical costs, and 12.6% for administration.
  - Hospital and medical expenses increased with plan age and size, apparently attributable to the higher proportion of elderly individuals in older plans. Administrative costs, as expected, decreased with plan size, reflecting economies of scale.
  - While hospital expenses and emergency care expenses varied little by model type, considerable variation was shown in the composition of medical expenses among professional service categories in different plan models.
- An analysis of 110 plans of all ages reporting for the 3 most recent consecutive years indicates that HMOs were able to improve their financial performance by keeping the rate of inflation for expenses below the revenue increases from 1987-1989. Compared to national health care spending per capita as a whole, HMO per capita expenses were about half. The median HMO increase was

somewhat below that of the nation for this period, although the mean increase was similar.

- Medicare members in an HMO have a financial impact on HMO revenues and expenses about 50% greater than their proportion of enrollment. Among plans able to report both total Medicare revenues and expenses, Medicare accounted for 16.0% of revenues and 16.3% of expenses, as compared with 9.6% of enrollment.
- An HMO's financial performance on its private sector accounts does not necessarily predict how well it does on its Medicare account. Although 45% of plans with a private sector surplus also had a Medicare surplus, a nearly equal percentage (41%) were subsidizing Medicare losses from surpluses in private sector accounts. Overall, of the 51 established plans reporting Medicare revenues and expenses, 43% suffered losses in 1989, 4% broke even, and 53% had operating surpluses.
- Of the 28 plans reporting Medicaid revenues and expenses, about half reported surpluses and half losses. The mean performance was a loss of $5.71, but the amount of loss or gain varied widely.

Financial Ratios, 1989

- Rate of return on assets, revenues, and equity were all positive in 1989 compared with 1988, when they were all negative. Since gross income is the numerator for each of these years, the ratios reflect the improved financial performance of the HMO industry in 1989.
- Compared to profitable plans, unprofitable plans in 1989 had a lower current ratio (0.91 versus 1.14) and a larger spread between days cash on hand and days premiums receivable (-13 versus -2). Compared to 1988, days premium receivable was about seven days higher among unprofitable plans in 1989 (26.3 versus 19.8), but only about a day higher among profitable plans (19.4 versus 18.2).
- In 1989, the total debt to equity ratio averaged 5.0, while the long-term debt to equity ratio averaged 0.38—indicating that the average HMO had about 12 times as much short-term debt as long-term debt. Staff and group model plans had a considerably lower ratio of total to long-term debt (4.7 and 9.4, respectively) than networks and IPA models (31.3 and 20.2, respectively). This reflects the fact that staff and group models make more use of long-term debt to finance medical facilities that they are more likely to own.
- Plans had the following mean (median) capital structure ratios in 1989: equity financing ratio, .181 (.192); long-term debt to equity ratio, 0.38 (0.00); cash flow to total debt, .141 (.143); tangible assets financing ratio, .828 (.809); reserves as a portion of total assets, 2.6% (0.6%); and IBNR (Incurred But Not Reported) as a percentage of current liabilities, 35% (36%). This last ratio varied by model, with group model plans having the lowest average ratio (17%), following by staff models (30%), networks (35%), and IPAs (40%).
- Plans had the following mean activity ratios in 1989: premium receivable turnover, 0.72; current asset turnover, 5.9; and total asset turnover, 3.8.
- The mean health care expense ratio was 89% in 1989. Profitable HMOs had a lower health care expense than unprofitable plans (86% versus 94%), which illustrates that a higher health care expense ratio does not necessarily indicate a more fiscally sound plan. Compared to 1988, the health care expense ratio declined in 1989; the spread between profitable and unprofitable plans was about the same, but each was about two points lower in 1989. The mean administrative expense ratio (12.8%) also declined in 1989. This ratio was higher for networks and IPAs than for group and staff model plans, which in part may reflect variation in plan size and methods of accounting for expenses by model.
- The mean and median gross profit margin in 1989 was 0.3% and 1.4%. Operating profit margins were positive in each model type except IPAs, which experienced a small loss, on average, offset by other income. Certain types of plans had negative margins in 1989, but these were in almost all cases within a percentage or two of breakeven. This differs from 1988, when several categories of plans had much higher average losses.

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I. INTRODUCTION

This report, volume 3 of a three-volume series, provides a statistical profile of and detailed information on the current characteristics of the Health Maintenance Organization (HMO) industry; it is based on the fifth Annual HMO Industry Survey of the Group Health Association of America, Inc. (GHAA). The three volumes are

1. Benefits, Premiums, and Market Structure in 1990
2. Physician Staffing (1990) and Utilization Patterns (1989)
3. Financial Performance, 1989 (this volume)

Trend analyses are incorporated into each volume, as well as selected special topics collected on a periodic rather than annual basis.

The key findings of this volume are in the highlights section. The text summarizes general findings on the overall profitability of the industry, HMO expenses and revenue sources, and financial ratios. Financial trends for selected measures are presented in Chapter VI. The final section of this volume contains the detailed tables. Most tables report the mean, median, 25th, and 75th percentiles for all respondents and for plans over 3 years old ("established plans"). The text emphasizes the characteristics of established plans. Most tables also show separate data for established plans that had gross profits versus those that had gross losses, as well as statistics for plans of diverse characteristics. To better address user needs, this year's series of detailed tables revises the regional classifications used in presenting data. It also presents data separately for HMOs owned by multistate organizations and others.

The volume addresses the interests of HMOs, employers, industry analysts and regulators, health services researchers, policy makers and others by reporting standard financial ratios. These ratios provide industry-wide reference points for comparing individual plans.

As the HMO industry has grown and diversified, the demand for data on it has increased. The most recent GHAA data indicate that 569 HMOs enrolled 36.5 million Americans in 1990.[1] One in seven Americans is enrolled in an HMO, and this number is likely to grow considerably within 10 years.[2]

GHAA, founded in 1959, is the oldest and largest national association representing prepaid, managed health care systems. The GHAA Annual HMO Industry Survey was initiated five years ago as one of several strategies designed to address the need for information on the industry as it grows and evolves. This survey represents the most comprehensive recent effort to examine characteristics of HMOs.

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[1] Group Health Association of America, *Patterns of HMO Enrollment (1991 Edition)* (Washington, D.C., 1991). The statistics are as of December 31, 1990.

[2] Actual enrollment percentages vary widely by geographical areas. Nationally, HMO enrollment includes 15% of the population of the United States and over 17% of covered lives (*Ibid.*). Market penetration varies widely by geographic area; 22% of individuals in the largest metropolitan areas were enrolled in an HMO in 1990 (*Ibid.*).

There are difficulties in projecting future trends, and estimates differ. Kenneth Abramowitz of Sanford C. Bernstein and Company has estimated that 28% of the private pay population would be in HMOs by 1994 and 40% by 2000 (Kenneth S. Abramowitz, *The Future of Health Care Delivery in America* (New York: Sanford C. Bernstein and Company, Inc., 1990, p. 34). More conservative estimates have placed HMO enrollment in 1995 at 20%-30% of the population. (Karen Davis et al. *Health Care Cost Containment* (Baltimore: Johns Hopkins University Press, 1990). These estimates are based on an Arthur D. Little study predicting 25%-30% enrollment, and an Alex Brown and Sons estimate predicting 20%-25% enrollment.

II. OVERVIEW OF METHODS

Data Source and Methods

The fifth Annual HMO Industry Survey was a mail survey sent to all HMOs listed in the *GHAA National Directory of HMOs, 1990*, which includes all HMOs, regardless of type or GHAA membership status. The survey was restricted to those plans operational on or before January 1, 1989.[3] The lengthy questionnaire covered a variety of topics, including plan characteristics, benefits offered, premium rates and rate-setting methods, enrollment and membership profile, data capabilities and employer data requests, diversification, physician staffing profile, and financial performance. Respondents could submit copies of the National Association of Insurance Commissioners (NAIC) "Orange Blank" instead of completing most of the utilization and financial sections of the survey. Some respondents submitted copies of audited financial reports instead of completing the financial part of the survey. Data from these accompanying reports were abstracted and coded on the survey forms.

The questionnaires were mailed in mid-April 1990; a postcard was sent as a reminder to respond a month later, and a second mailing to HMOs that had not responded took place three weeks later in the second week of May 1990. In late June 1990, personalized follow-up letters were sent to all nonresponding plans that had responded to previous surveys; selective telephone calls for follow-up were also made.

Responding plans were assured of the confidentiality of individual plan data. Most questions referred to status as of March 31, 1990. Utilization and financial statistics were requested for 1989 because plans can most readily provide these on a calendar year basis. Survey execution and content was generally consistent with previous years; as usual, some change in content has been made to reflect new needs or the collection of information requested on a periodic basis (e.g., data capabilities).[4] In presenting data by plan characteristic, this year's Profile also introduces changes in the regional classifications used and a new plan characteristic, "multistate organization," to assist in considering ownership, as noted in the "Guide to Using Detailed Tables."[5]

The survey was sent to 567 of the 591 plans listed in the *Directory*. Of the 24 plans not sent surveys, 18 were excluded because their operational dates were after January 1, 1989 and 6 for other reasons.[6] Once the survey was underway, an additional 15 plans were eliminated from the sampling frame based on information received. In most cases, this was because the responding plans indicated that component plans surveyed were more appropriately aggregated as a single plan; in one case, a plan was not an HMO in the traditional sense. The net impact of these changes was that 552 plans were considered in identifying the level of response to the survey.[7]

Response Analysis

A total of 372 plans responded to the survey. The

---

[3] This was done because very young plans may not be sufficiently established to give meaningful responses to a number of survey items (e.g., utilization and financial performance) and their structures may not be very stable. In addition, we wished to reduce the administrative burden on these very young plans. Although this criterion eliminated a number of plans, the HMO enrollment in them is small, and we did not feel that omitting these plans would detract from the ability to generalize to the HMO industry.

[4] An April collection date allows for the most current utilization and financial reporting feasible. Because the majority of contracts renew in January, the largest shifts in plan benefits, premiums, and market structure activities occur then. Data for March 31st is probably reasonably representative of the calendar year.

[5] The regional classifications used continue to be based on the eight category U.S. Census classifications, but the categories have been regrouped so that the states in regions combining more than one U.S. Census category are more geographically homogeneous in ways likely to influence HMO performance. In addition to the noted changes, the *Profile* this year combines independent plans with those of "other" ownership because they represent only a small number and, in our judgment, would be most similar to independent plans.

[6] Of these other 6, 2 were eliminated because they were not geographically distinct from other included plans, 2 because they were no longer in business, and 2 because they were listed twice in the GHAA's *National Directory of HMOs* to address the needs of users of that document.

[7] In a few cases, responding plans submitted more aggregated statistics on utilization and financial statistics. These were allowed when the consolidation appeared consistent with survey intent; inconsistent mergers (e.g., HMO with PPO data) were not allowed.

Appendix contains a listing of these plans. Overall, respondents to the survey represent 67.4% of all plans operational in 1989; their 28.0 million members include 80.9% of all enrollees in HMOs in the United States at year end 1989.

Appendix Table A-1 includes a tabular display of response rates for various types of plans, based on year end 1989 information included in GHAA's *National Directory of HMOs, 1990,* which was the source used in identifying plans surveyed. General findings and patterns of results are summarized here.

Response rates to the survey were higher for established plans (those operational for over 3 years) than new plans (those operational for 3 years or less). Although the differences were less than in prior years, 70% of established plans responded versus 52.8% of new plans. With the maturation of the industry, 83% of all plans surveyed in this cycle—and 96% of the enrollees in these plans—were in the established plan category based on the year end 1989 data. As a result, statistics for these plans are reasonably representative of the typical experience of most HMO enrollees.

Within established plans, response rates were generally good for all plan types; 60% or more of all plans responded in each plan characteristics category that could be examined based on data in the *Directory*, suggesting that responding plans are reasonably representative. However, the level of response did vary somewhat by plan characteristic. The largest differences were in response rates for federally qualified plans versus others (77% versus 60%) and for GHAA member plans versus others (79% versus 61%). Response rates also were higher for plans with 8 or more years operational experience than for younger ones; over three-quarters of the former responded while 65% of the plans 4-7 years old responded. Response rates also increased with plan size, and were lower for IPA model plans (63%) than others. Some of these patterns could be attributable to the interrelationship of plan age and other characteristics.

Because older and larger plans were somewhat more likely to respond to the survey, responding plans represent a larger share of the national HMO enrollment than they do plans. Responding plans represent 80.9% of the total enrollment of surveyed plans, and 82.0% of all enrollees in established plans at year end 1989. The responding new plans include 54.5% of the national enrollment in new plans with one year's operational experience or more. The lower response rate for new plans is probably related to the intensive organizational efforts needed at the initial operational stage.

Response to Financial Items

Of the 372 plans responding to the survey, 277 (74%) submitted financial data for 1989. In general, the 277 plans had a profile similar to the 372 total industry respondents on most plan characteristics. Plans owned by commercial insurers were less likely to submit financial data; they constitute 14% of the respondents to this volume, compared with 25% of total survey respondents. Perhaps as a result, 40% and 33% of respondents in this volume are nonprofit plans and multistate organizations, respectively, as compared to 36% and 41% of total survey respondents.

In total, the 277 plans enrolled 23,961,659 members on December 31, 1989. Of these plans, 242 were established plans and 35 were new plans (3 years old or less). With industry maturation, a considerably smaller share of plans are new plans this year than previously. Because their response rate to the survey was better and because their financial statistics are less likely to be influenced by start-up phenomena, the text emphasizes statistics for established plans.

The number of plans that completed all portions of the financial reporting form varied. Moreover, it appeared that sometimes a few HMOs tracked selected expense and revenue sources and aggregated the remainder in the "other" category. This year these plans are omitted from those portions of the analysis related to this detail so that the statistics provide a more accurate estimate of expenses and revenues by source.

The number of responding plans included in the analysis of each item is shown on the table for that item; in some cases, this is less than the total number of respondents to that item. This is the result of two factors: (1) some analyses required that plans provide complete data on several items and (2) data more than three standard deviations from the mean were trimmed. These omissions also result in some minor inconsistencies across the same statistics in different tables.

Comparison of Respondents to Last Year's Survey

Response rates were higher to this year's survey as a whole than to last year's, reflecting the institutionalization of the survey process and the growing support for it in the industry.[8] Among the established plans on which the analysis is focused, the response rate has increased from 44% to 55% to 63% to 70% over the past 4 years. (For all plans, the 67% response rate for all surveyed plans this year compares to 58%, 45%, and 33% for the 1990, 1989, and 1988 editions of the *Profile*, respectively.)

As response rates have improved, those responding also have become more representative, which increases the ability to generalize from the survey. Historically, it also has made comparisons of year-to-year changes more difficult, particularly for those items that vary considerably by plan characteristic. The differences in respondents across the survey years should continue to be considered in analyzing changes in year-to-year responses. However, because response rates have been fairly high for the past 2 years, differences in respondents should present less of a problem in comparing this year's survey to last year's than they have in the past. Changes in response still need to be considered, particularly for topics in which plan statistics vary by characteristics associated with improvements in response.

Of the 372 plans responding to this year's survey, 264 (80%) were included in the 332 plans responding last year. This probably understates the overlap across years because of industry consolidation and the difficulty in tracking plans with changing ownership. A greater degree of overlap is also likely for established plans, since their response rates to the survey have been higher.

Analytical Techniques and Survey Limitations

The GHAA Annual HMO Industry Survey provides the most comprehensive and detailed source of information currently available on the HMO industry; nonetheless, the reader should recognize limitations in interpreting the data.

Response rates and patterns should be considered in interpreting the results and generalizing to the industry. Because their response rates are higher and also because they include the vast majority of HMO enrollees, established plan statistics are emphasized in the text and shown separately from the "all plans" figures in the detailed tables.[9] These statistics are likely to be most generalizable.

While statistics by plan characteristics are informative, the reader should exercise caution in drawing inferences on causality. Many plan characteristics are interrelated, and other factors also may influence plan performance. Additionally, small differences in statistics for categories of respondents should generally be overlooked because they may easily represent random variation.

Because the responding plans are not identical, caution should be used in comparing data across surveys of different years, as noted previously. Because trend analysis is of critical importance, some questions on change were included in this year's survey to help identify trends through the cross-sectional data. In addition, some analysis is included on changes within the subset of plans commonly responding across years. Although these plan subsets provide a less generalizable industry-wide estimate for any given year than the full set of plans responding, the statistics for the subset are a clearer indication of change within a cohort of plans and can be used to validate trends apparent from the cross-sectional comparison across years.

Finally, the design of most included analysis uses the individual HMO as the unit of analysis rather than weighting plans by total enrollment. The approach used allows a characterization of the industry as it is reflected in its individual plans, which was the reason it was selected over a weighted analysis. This was felt to be particularly useful as the industry is undergoing changes. Although the selected approach is desirable in a number of ways, it does not necessarily show the average experience for an individual enrollee in an HMO, because a disproportionate number of enrollees are in the larger plans. Users can estimate how a particular statistic translates into the average experience of HMO enrollees by weighting the statistics given by plan characteristics (e.g., size) by the share of the total HMO enrollment represented in plans of that type.

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[8] Approximately the same number of plans are included in the financial analysis of this volume (277 versus 284 last year).

[9] Although statistics are presented for plans in operation 3 years or less, this year's report does not break these down generally by plan characteristic. This is because of the relatively small number of total plans included in this group this year (i.e., 35 for the tables in this volume that are based on 1989).

III. CHARACTERISTICS OF RESPONDING PLANS

This chapter summarizes the major characteristics of responding plans used in the financial analysis. An overview of characteristics is presented first, followed by a brief comment on some of these characteristics.

Overview of Plan Characteristics

Table 1 presents data on the distribution of responding plans and enrollees among plans of different characteristics. Characteristics of established plans (those operational for over 3 years) are discussed first, followed by those of new plans (those operational for 3 years or less)[10]

Plans Operational for Over 3 Years

Table 1 shows the distribution of HMOs by plan characteristic. Of the 277 responding plans, 242 had been operational for over 3 years. These 242 plans had 22.9 million enrollees on December 31, 1989 and include 95.6% of all enrollees in plans responding to the financial section of the survey.

Sixty percent of established plans are Individual Practice Associations (IPAs), 12% networks, 14% staff, and 15% group models. Group models (which tend to be larger) included the largest share (38%) of the total enrollment, with IPAs including the next largest share (35%). Sixty-nine percent of plans were federally qualified and 43% were nonprofit. Compared to last year and the year before, this reflects an increased response from for-profit HMOs.

Although most plans were at the younger end of the age distribution (54% were 4-7 years old), 44% of enrollees were in the 15% of plans age 16 or older. Because 71% of all enrollees in established plans are in plans with 100,000 members or more, users may be particularly interested in statistics for these larger plans when they wish to understand the typical enrollee experience.

Plans are located nationwide but are most concentrated in the Midwest (31%); the largest share of enrollees are in Pacific plans (37%). Ownership varies considerably, with 28% owned by Blue Cross-Blue Shield organizations or commercial insurers, 32% independently, 25% by providers, and 16% by national HMO organizations. In total, 31% of established plans were part of multistate organizations and 69% were not; enrollees were about evenly split between both types of plans.

Exhibit 1 shows the number of established plans included in the financial analysis by model, plan age, and size. This exhibit is helpful in interpreting statistics presented in this volume because these characteristics are interrelated. Compared to other models, IPAs are considerably more likely to be younger and smaller plans, both factors strongly associated with financial performance.

Plans Operational for 3 Years or Less

Plans operational for 3 years or less (new plans) make up 13% of the respondents to the financial portion of the survey and 4.4% of the total enrollment of all plans used in the financial analysis. In comparison with established responding plans, the new plans are considerably more likely to be IPAs (77%), for-profit (77%), and non-federally qualified (66%). They also were more likely to be owned by providers (37%) or commercial insurers (23%).

Sixty-nine percent had fewer than 20,000 members and only 14% of plans had 50,000 members or more. Compared to established plans, new plans were less likely to be based in the Mountain or Pacific regions (9% versus 21%).

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[10] For this purpose, the years in operation are computed based on plan reports of the date they became operational; any year in which a plan was operational for part of the year is considered as a full year. For simplicity, all plans that began operation in 1987 or later are considered to have 3 or fewer years in operation for analyses in this volume based on December 31, 1989. The remainder are considered "established." Because the HMO industry is maturing, an increasingly smaller proportion of all respondents are new plans.

Exhibit 1
Distribution of Plans Reporting 1989 Financial Data by Model, Age, and Size Characteristics, Plans Over Three Years Old

Model Age	Total	Size 0–19,999	20,000–49,999	50,000–99,999	100,000+
STAFF					
4–7	6	4	2	0	0
8–15	14	4	1	8	1
16+	13	0	2	5	6
Total	33	8	5	13	7
GROUP					
4–7	9	2	2	4	1
8–15	16	2	3	6	5
16+	10	0	1	0	9
Total	35	4	6	10	15
NETWORK					
4–7	14	3	10	1	0
8–15	10	1	0	2	7
16+	6	0	1	3	2
Total	30	4	11	6	9
IPA					
4–7	101	41	35	17	8
8–15	36	5	5	8	18
16+	7	1	3	1	2
Total	144	47	43	26	28

Source: GHAA's Annual HMO Industry Survey

Comment on the Nature of Various Plan Characteristics

HMOs are complex organizations. As a result, any method of classification results in some simplification. In considering plan characteristics, readers should be aware that some plans use a mix of HMO models, obtain federal qualification for some service areas only, and have complex ownership patterns.

In its analyses of plans, GHAA bases results on the predominant model types, asking plans to determine which definition among four choices—staff, group, network, and IPA—best describes their plan.[11] However, plans may have multiple types of arrangements with physicians to develop a provider network appropriate to the service area of the plan and its characteristics. These arrangements result in use of plan components representing a variety of HMO models. As discussed in Volume 1, 24% of all established plans responding to the survey have plan components reflecting other than their predominant model type. To better understand how provider networks are structured in HMOs, this year's survey asked plans specifically about the types of practices with which they were affiliated (e.g., size of physician group). These results are analyzed in Volume 2 of the *HMO Industry Profile*.

Federal qualification also may be handled diversely within a single plan, with plans federally qualified in some service areas and not others. Of the 58.1% of federally qualified plans responding to the survey as a whole, 41.9% were federally qualified in all service areas and 16.2% in some service areas.

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11. The following definitions are used in the GHAA Annual HMO Industry Survey: (1) *staff*, an organized prepaid health care system that delivers health services through a salaried group employed by the HMO unit, (2) *group*, an organized prepaid health care system that contracts with one independent group practice to provide health care services, (3) *network*, an organized prepaid health care system that contracts with two or more independent group practices to provide health services, and (4) *IPA*, an organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations or physicians in independent practice, and/or with one or more multispecialty group practices (but predominantly organized around single-specialty practices) to provide health services.

IV. OVERALL INDUSTRY PERFORMANCE IN 1989, REVENUES, AND EXPENSES

This chapter describes the 1989 financial permance of the HMO industry. It reviews overall profitability and analyzes the interactions of plan model, age, and size. Unless otherwise noted, all findings apply to established plans.

The text, figures, and exhibits emphasize gross income rather than net income to allow HMOs to compare themselves with their peer group, regardless of tax status. "Profit," "surplus," and "profitable" refer to a positive or breakeven gross income—that is, income before taxes and extraordinary expenses.

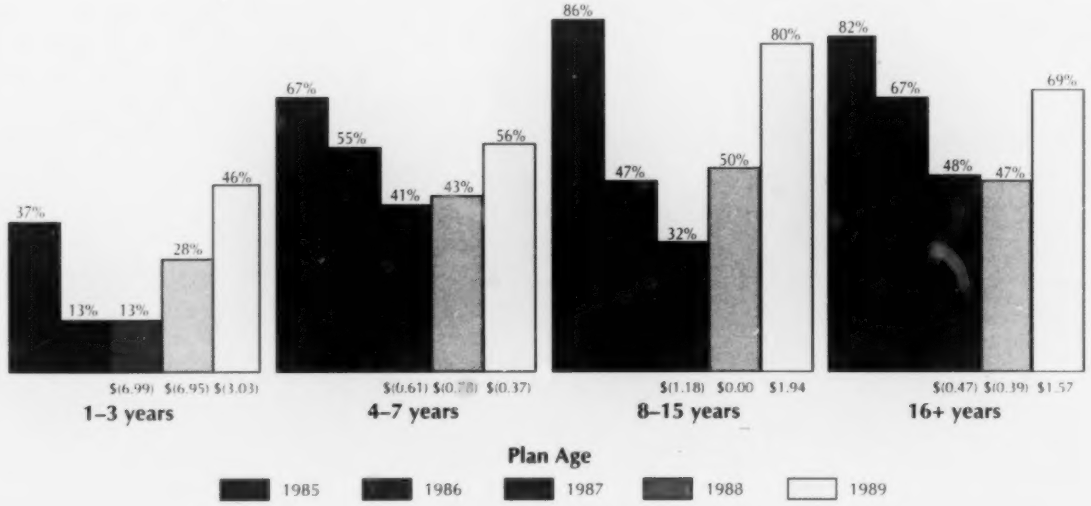
Overview of 1989 Performance

The industry continued to show overall improvement in financial performance in 1989 compared with previous years, both in terms of total income and in the proportion of plans reporting a surplus or profit. Figure 1 shows the proportion of plans reporting a gross profit in each year since 1985, by plan age, as well as the median gross profit or loss since 1987. The medians showed steady increases over the three years for plans in operation 8 years or more, but plans in operation 7 years or less did not show large improvements until 1989. Also noteworthy is that nearly half (46%) of new plans were profitable in 1989, which is the highest proportion in the 5 years illustrated.

We asked respondents to provide information on their overall 1989 financial performance, even if they did not complete the balance sheet and income statement in the survey. Of the 261 respondents from

Figure 1

Percentage of HMOs with a Gross Surplus by Age, All Plans, 1985–1989*, and Median Gross Surplus (Deficit), 1987–1989



* Percentage of plans in the specified category reporting a profit before taxes and extraordinary items. Plans with 1000 enrollees or fewer excluded.
Source: GHAA's Annual HMO Industry Survey

Exhibit 2
Comparison of Overall Financial Performance in 1989 Versus 1988, Plans Over Three Years Old

	Considerably Better	Somewhat Better	Same	Somewhat Worse	Considerably Worse
ALL PLANS	53.6%	27.6%	6.3%	8.4%	4.2%
MODEL					
Staff	48.6	28.6	8.6	5.7	8.6
Group	36.1	47.2	11.1	5.6	0.0
Network	50.0	26.5	5.9	14.7	2.9
IPA	60.0	23.0	4.4	8.1	4.4
SIZE					
0–19,999	36.4	27.3	14.5	14.5	7.3
20,000–49,999	60.0	25.7	4.3	5.7	4.3
50,000–99,999	64.7	17.6	5.9	9.8	2.0
100,000+	52.4	38.1	1.6	4.8	3.2
OWNERSHIP					
Blue Cross/Blue Shield	60.0	25.0	7.5	7.5	0.0
Commercial Insurer	69.0	20.7	0.0	6.9	3.4
National HMO Company	37.8	48.6	5.4	5.4	2.7
Independent	57.1	22.1	6.5	7.8	6.5
Provider-sponsored	46.4	26.8	8.9	12.5	5.4
MULTISTATE ORGANIZATION					
Yes	51.4	38.9	2.8	5.6	1.4
No	54.5	22.8	7.8	9.6	5.4

Note: Rows may not add to 100% due to rounding
Source: GHAA's Annual HMO Industry Survey

established plans, over two-thirds (69%) said they generated a profit. Plans least likely to report a net profit were small plans (42%) and plans owned by commercial insurers (37%). Plans most likely to report a net profit were the largest plans (81%) and group models (89%).

Exhibit 2 shows how respondents by various plan characteristics compared their 1989 performance to 1988. Nearly all established plans (87.5%) reported the same or better performance, especially group models (94.4%) and multistate organizations (93.1%). In contrast, provider-sponsored plans were more likely to report poorer performance (17.9%), as were network model plans (17.6%) and plans with under 20,000 members (21.8%).

We asked plans to list the most important reasons for differences in their financial performance between 1989 and 1988. Two hundred and three plans provided a narrative answer to this question. Approximately 40% of respondents who reported an improvement cited larger revenues. Most of these plans raised their premiums, but some also enhanced their investment income. Almost as frequently cited (38%) was some form of new cost control: improved utilization review, a more efficient administration, and/or renegotiated hospital and physician contracts. The third most frequently cited reason (about 20%) was an increase in the membership base, which allowed plans to spread their fixed costs over more members. About 17% of plans with improvements cited better rating practices and more stringent underwriting.

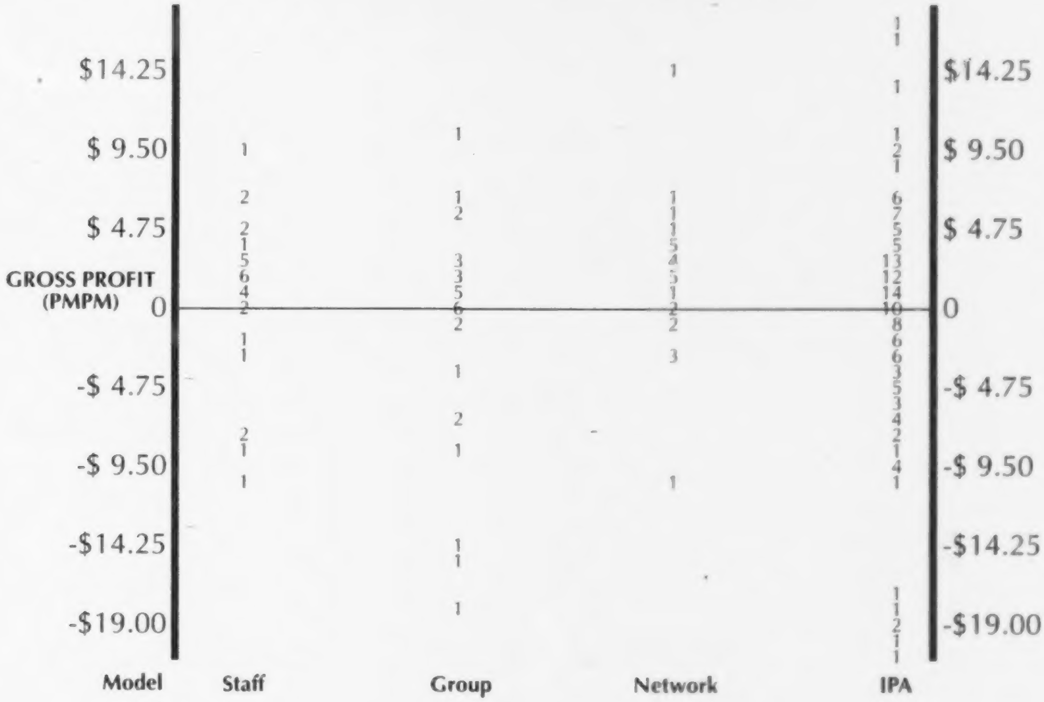
Reasons for poorer performance varied widely, with under-estimated costs or utilization cited most often. Six plans specifically cited catastrophic cases, and four cited increased contributions to reserves.

Improvements in financial performance appear to have continued into 1990, according to GHAA's *HMO Market Position Report.* Of plans sampled in late 1990, 89% indicated that their anticipated 1990 financial performance would be better than 1989—48% considerably so.[12]

The proportion of established plans that completed the income statement on the survey and that showed a gross profit jumped from 46% in 1988 to 66% in 1989 (Table 2). Overall, 79.3% of enrollees in established plans were in plans showing a gross profit. Moreover, the median and mean per member per month (PMPM) performance rose from losses of -$.26 and -$2.58, respectively, in 1988 to small surpluses of $1.15 and $.17 (Table 3). Figure 2 shows the distribution of gross income per member per month by model type. As in 1988, IPA models showed the widest distribution of gross income.

Table 3 indicates that median gross income PMPM varied unpredictably with increasing plan size and age; however, the smallest and youngest plans did relatively poorly. Exhibit 3 shows the median gross income PMPM by plan model, age, and size. The median gross income of staff model plans showed no patterns and actually declined overall from the smallest to largest plans ($2.20 to $0.99) and from the youngest to oldest plans ($1.94 to

Figure 2
Distribution of Gross Profits by Model Type, Plans Over Three Years Old, 1989



Model	Staff	Group	Network	IPA
Mean	$ .91	-$0.85	$1.93	-$0.13
Median	$1.87	$0.48	$2.07	$0.87
Sample Size	29	30	27	127

Note: Numbers in columns represent number of plans over three years old.
Source: GHAA's Annual HMO Industry Survey

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[12] Marsha Gold, Sc.D., and Kevin Camerlo, *HMO Market Position Report: Results from an October 1990 Member Plan Survey* (Washington, D.C.: Group Health Association of America, November 1990).

Exhibit 3
Median Gross Income PMPM by Plan Model, Age, and Size, Plans Over Three Years Old, 1989

	SIZE			
MODEL	**0–19,999**	**20,000–49,999**	**50,000–99,999**	**100,000+**
Staff	$2.20	$1.89	$2.37	$0.99
Group	3.72	0.42	1.11	0.20
Network	-2.63	1.38	3.29	3.79
IPA	-1.47	1.94	1.44	1.93

	AGE		
MODEL	**4–7**	**8–15**	**16+**
Staff	$1.94	$2.38	$1.30
Group	0.17	1.98	0.56
Network	0.17	3.22	3.38
IPA	0.32	1.71	1.93

	SIZE			
AGE	**0–19,999**	**20,000–49,999**	**50,000–99,999**	**100,000+**
4–7	$-1.05	$0.82	$1.82	$-0.18
8–15	- 1.18	2.90	1.80	2.25
16+	*	2.92	3.38	0.60

* Data are not shown where cell size is less than 4 plans.
Source: GHAA's Annual HMO Industry Survey

$1.30). Group models also varied by size and age, with smallest plans doing the best ($3.72) and plans in operation 8-15 years doing ten times better than plans in operation 4-7 years ($1.98 versus $0.17). In contrast, the gross income PMPM for network models increased linearly with size and age. The gross income for IPAs increased linearly with age, but there was no obvious pattern for size.

Figure 3 shows the distribution of gross surpluses or losses for all plans. Because absolute gains or losses are related to plan size, which varies considerably, the absolute amounts of gross income—both positive and negative—ranged widely, as one would expect; the mean and median gross income were $688,458 and $350,562, respectively.

In aggregate, the HMO industry gained an estimated $0.23 billion before taxes on $38.3 billion in revenue in 1989.[13] Although the gain is small in percentage terms (0.6%), it compares to estimated losses of about -4.2% in both 1987 and 1988 or about $1.39 and $1.04 billion, respectively.[14]

Operating Profits

A comparison of median operating and gross performance in Table 3 shows different patterns by plan characteristic. Also, the difference between operating and gross income by plan characteristic tends to be much wider than the $.03 implied by the industry-wide medians.

For example, while the median operating income for group model HMOs ($2.02) was nearly the same as that for staff model HMOs ($2.15), the median gross income for groups was about one-fourth that

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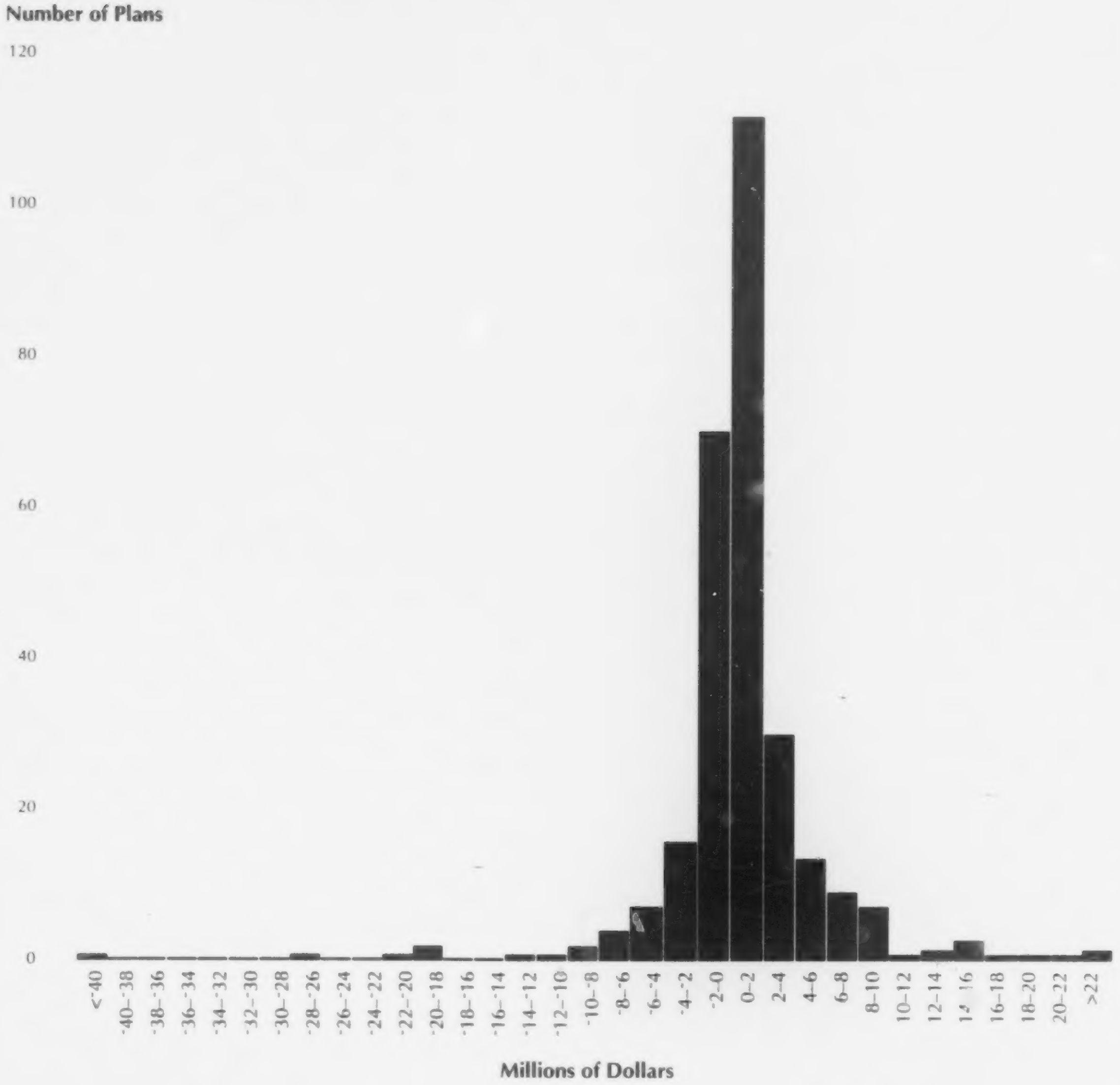
[13] This estimate is based on regression models of revenues and expenses by model type and enrollment size. (Statistics from survey responses are imputed to the overall distribution of plans in the industry.)

[14] American International Healthcare reports that final data from 96% of all HMOs shows a combined net income of $246 million in 1989, compared to net losses of -$882 million in 1988. The AIH database shows that 55% of HMOs in the U.S. achieved a positive net income, and 75% improved their income over 1988.

Figure 3
Distribution of Gross Income, All Plans, 1989



Source: GHAA's Annual HMO Industry Survey

for staff ($0.48 and $1.87, respectively). While the median operating income for plans located in New England was about five times better than those located in the Middle Atlantic ($2.38 versus $0.53), the gross income was slightly worse in New England than in the Middle Atlantic (-$0.32 versus -$0.26).

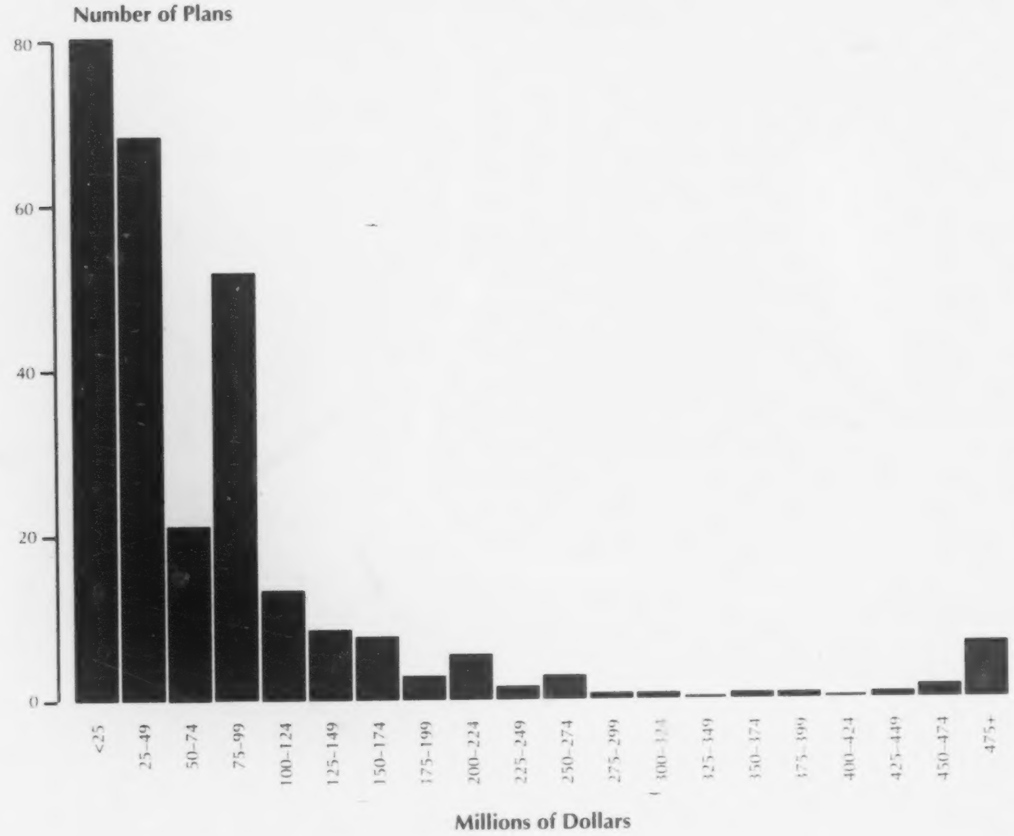
We can expect plans in those categories with large operating incomes to perform better as a group over time, because they are covering their cash expenses with cash inflows rather than relying on "paper" sources of revenues (such as depreciation) to show a surplus.

Revenues

Figure 4 shows the distribution of total, plan-wide revenues. Although a few very large plans are represented (2% of plans reported revenues over $500 million) and 25% of plans had revenues over $100 million, half of the industry had revenues under $44.5 million. Thus, we can describe the HMO industry as dominated by many small- and medium-sized plans, with a handful of very large plans.

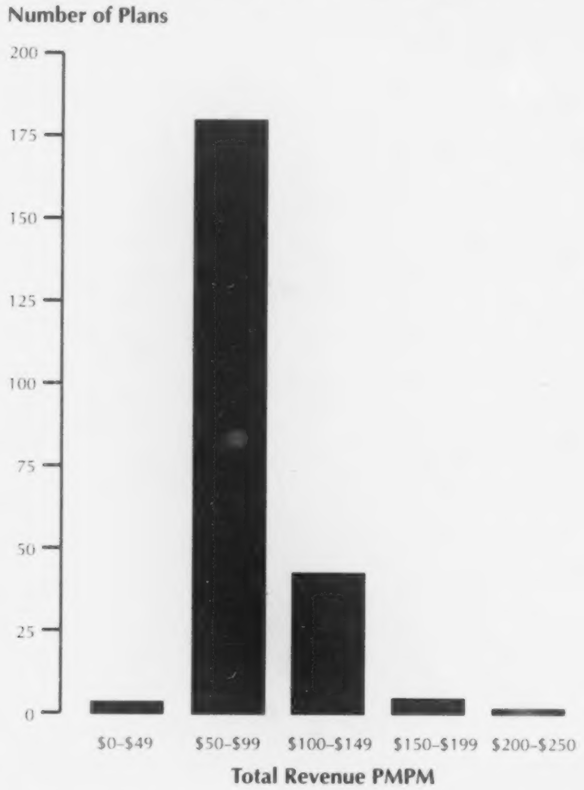
Figure 5 shows the distribution of total PMPM revenues per plan. Half of the plans reported PMPM revenues between $67.08 and $105.25, with a mean of $92.30. PMPM revenues were much larger for staff model HMOs than other model types. Revenues also increased with plan size and age. To see how some of these factors interrelated, we looked at how the median PMPM revenue varies by model type when controlling for plan size and age (Exhibit 4). The exhibit indicates that, within models, plan size is not a very good predictor of revenues PMPM in established plans. In contrast, plan age appears to be a good predictor: staff, group, and network models clearly show an increasing linear relationship between revenues and age, but IPAs appear to show revenues declining with age. Since staff model HMOs are typically older than the average HMO (median age 13 years, versus 11 years for groups, 8 years for networks, and 5 years for IPAs), staff models probably have a higher proportion of elderly members;[15] consequently, it is not

Figure 4
Distribution of Plan Revenues, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

Figure 5
Distribution of Total Revenue Per Member Per Month, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

surprising that they have the highest revenue requirements of all model types.

Table 4 presents per member per month revenue data; it includes only plans reporting data on types of revenue sources. Premiums continue to make up the largest portion (87.5%) of total revenues. Combined Medicare and Medicaid premiums contributed only 7.9% of revenues, compared to 12% in 1988. Fee-for-service and copayments accounted for 1.1% of revenues, coordination of benefits (COB) and subrogation for 0.8%, and "other" for 2.8%.

In general, revenue sources are distributed similarly for all plans except staff models, plans with more than 50,000 members, nonprofit plans, and plans in operation 16 years or more. These plans receive a higher proportion of revenues from Medicare and Medicaid payments. As an example, average Medicare and Medicaid revenues PMPM were nearly twice as large for staff model HMOs ($15.57) than for any other model type (approximately $5.48 - $8.72). Plans owned by commercial insurers report a negligible Medicare and Medicaid average revenue ($0.23). This is expected, because commercial insurers typically have preferred to insure group accounts in the private sector.

Overall Expenses

The average health care expense in 1989 was $88.73 PMPM, distributed as follows: hospital

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15. Evidence for this is presented in Table 14 (Volume 2) of the 1991 edition of the *HMO Industry Profile*

Exhibit 4
Median Total Revenue PMPM by Plan Model, Controlling for Size and Age, Plans Over Three Years Old, 1989

		SIZE			
MODEL	**Total**	**0–19,999**	**20,000–49,999**	**50,000–99,999**	**100,000+**
Staff	$ 95.94	$ 78.29	$ 90.91	$ 95.69	$104.52
Group	84.10	83.61	88.60	81.42	91.57
Network	85.57	86.09	75.43	92.41	87.42
IPA	85.32	83.03	85.41	84.39	89.73

		AGE		
MODEL	**Total**	**4–7**	**8–15**	**16+**
Staff	$ 95.94	$ 80.52	$ 88.81	$104.52
Group	84.10	77.89	90.09	91.56
Network	85.57	82.26	85.29	101.84
IPA	85.32	85.18	86.21	83.86

Source: GHAA's Annual HMO Industry Survey

Exhibit 5
Median Hospital and Medical Expenses PMPM by Plan Size and Age, Plans Over Three Years Old, 1989

	SIZE			
MEDICAL	**0–19,999**	**20,000–49,999**	**50,000–99,999**	**100,000+**
Age				
4–7	[illegible]	$ 46.39	$ 46.92	$ 44.08
8–15	[illegible]	45.92	51.25	46.88
16+	[illegible]	54.04	52.75	58.80
HOSPITAL				
4–7	$ 30.70	$ 25.01	$ 27.64	$ 26.88
8–15	23.43	25.54	27.84	29.01
16+	*	27.06	34.09	31.04

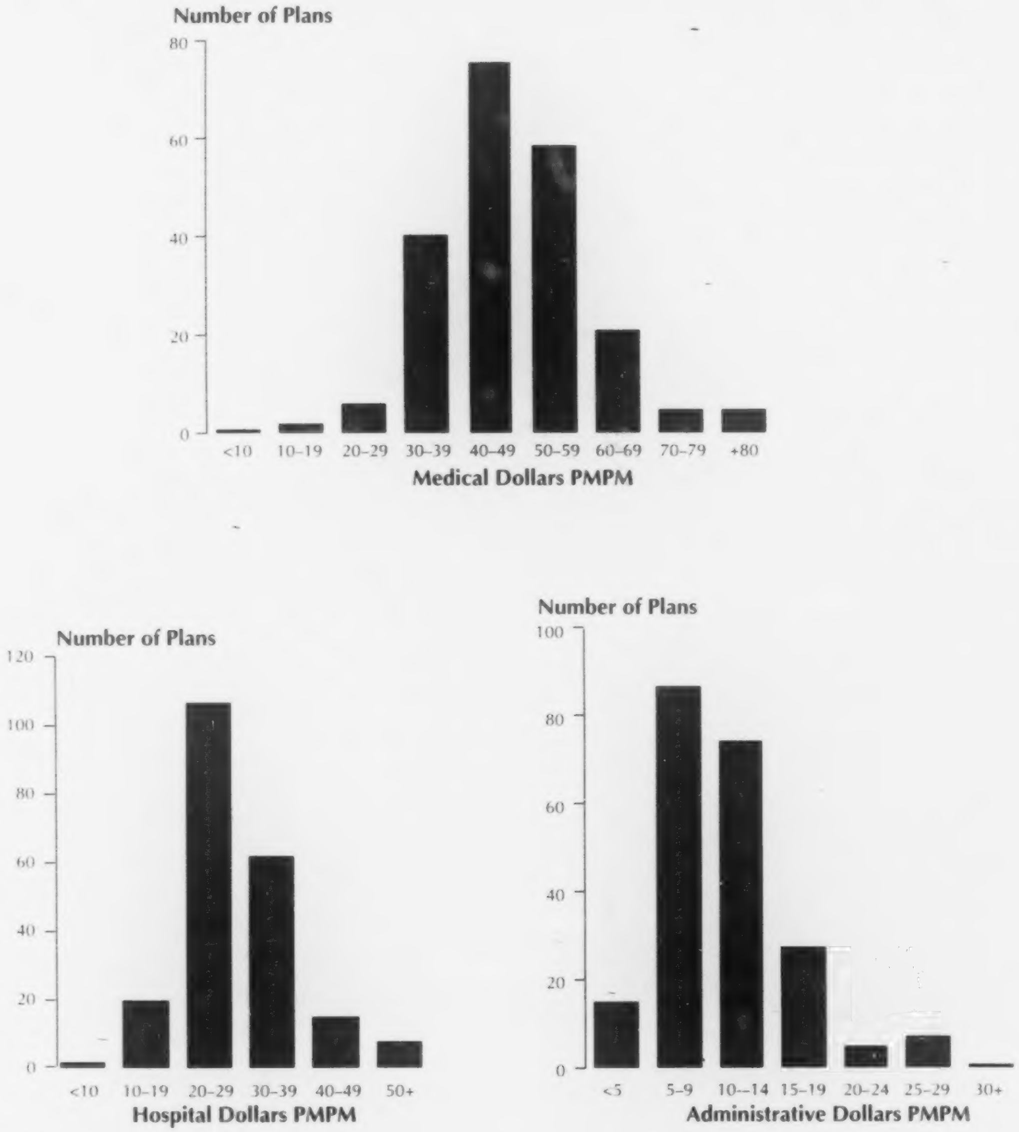
* Data are not shown where cell size is less than 4 plans.
Source: GHAA's Annual HMO Industry Survey.

33.1%, medical 54.3%, and administrative 12.6%. Staff model HMOs spent a slightly higher proportion on medical (59.2%) and less on hospital (28.9%) than the other model types (Table 5). Figure 6 shows the distributions of hospital, medical, and administrative expenses PMPM. Median expenses were $27.64, $47.58, and $10.24 PMPM for hospital, medical, and administrative, respectively.

Total expenses PMPM increased linearly with plan size and age. However, the components of total expenses followed different patterns, with increases in hospital and physician expenses PMPM offsetting linear decreases in administrative costs. Administrative costs are expected to decrease with plan size as they are, for the most part, fixed costs that can be distributed over more members as the plan grows.

Exhibit 5 shows median hospital and medical expenses by plan size and age. These show no economies of scale with increasing size. However, PMPM costs tend to increase with plan age regard-

Figure 6
Distribution of Hospital, Medical, and Administrative Expenses Per Member Per Month, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

less of plan size. One possible explanation is that older plans have a higher proportion of elderly members,[16] leading to higher days/1000 (426 days/1000 for plans age 16 and over versus 398 days/1000 for plans age 4-7) and slightly longer lengths of stay (4.9 days for the oldest plans versus 4.5 days for the youngest plans). Consequently, older plans spend more PMPM to provide health care services than do younger plans, which have a younger enrolled population.

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[16] See Vol. 2, GHAA's HMO Industry Profile, Table 14.

Many people are interested in comparing expenses for provider-owned HMOs versus other HMOs. As a group, provider-owned HMOs have slightly lower expenses than average. We also looked at health care expenses for physician, hospital, and physician/hospital-owned plans (Exhibit 6). These three types of ownership show very little difference in median hospital, medical, or administrative expenses PMPM. If these plans were established by hospitals or medical groups to enhance revenues from HMO patients, the evidence would appear in the financial statements of the hospital or group rather than in the HMO.[17] The numbers in Exhibit 6 imply that provider-owned HMOs are successfully negotiating competitive inpatient and physician visit fees and/or controlling utilization and may in fact have an advantage in obtaining a discount from the hospital or physician group owners. Alternatively, the variations could be explained by differences in costs by region, by enrollment mix, or by other factors that are uncontrolled in the comparison and that might also vary with ownership.

Detailed Health Care Expenses

Table 6 shows health care expenses by type for those 81 plans able to report expenses separately for inpatient services, emergency room/out-of-area services, physician services, and outside referrals.[18] On average, plans spent 33.3% of total health care expenses on inpatient care, 28.5% on physician services, 12.3% on outside referrals, 8.0% on other professional services, 4% on emergency room and out-of-area services, 0.9% on reinsurance, and 11.2% on "other" medical costs.

Some of these percentages varied widely by plan characteristic. As in previous years, the dollar amount and percentage spent on inpatient care and emergency room/out-of-area care varied little by model type, but there was considerable variation in professional services. For example, staff models reported a much higher percentage for other professional services (14.1%) than the average of 8.0% and a somewhat higher percentage for referrals (14.9% versus the average of 12.3%). In dollar terms, staff models reported spending nearly four times as much as networks and IPAs on other professional services and about one-third more than all other model types on outside referrals. This is consistent with utilization data showing staff and group model plans having a considerably higher share of encounters than networks and IPAs with physician extenders, as well as with other nonphysician providers; group and staff model plans also had higher average rates of out-of-plan encounters.[19]

Outside referral expenses decreased linearly with increasing plan age and size. As plans grow larger and older, the volume of complex cases probably

Exhibit 6
Median Hospital, Medical and Administrative Expenses PMPM for Provider-Owned Plans, Plans Over Three Years Old, 1989

	Total	Hospital	Medical	Administrative
OWNERSHIP (number)				
Hospital (21)	$81.93	$27.64	$42.18	$10.56
Physician (18)	81.83	28.15	46.76	8.57
Joint Hospital/Physician (16)	81.97	25.85	43.90	9.88

Source: GHAA's Annual HMO Industry Survey

reaches a magnitude that justifies retaining a larger share of specialists full time on the HMO's panel (or on contract within the provider network).

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[17] See *Hospital's* magazine, January 5, 1991 (p. 27).

[18] This table differs from previous editions of the *HMO Industry Profile*, including data from HMOs including only summary expenses (e.g., only hospitalization and physician services). This overstated the inpatient and physician services expenses, and understated all other categories. We believe that HMOs will find this revised table more useful for budgeting purposes.

[19] Irma Arispe, *GHAA Sourcebook on HMO Utilization Data (1991 Edition)* (Washington, D.C., Group Health Association of America, June 1991).

Reinsurance expenses decreased by half from $0.81 PMPM in the smallest plans to $0.38 PMPM in the largest plans, illustrating the advantages of being able to self-insure and/or spread risk over a larger membership.

Administrative Expenses

Table 7 presents data on administrative expenses by type for the 187 HMOs that provided detailed expenses on compensation, marketing, and occupancy/depreciation/amortization. Average compensation costs decreased with plan size from $5.21 to $3.52 PMPM, and average marketing costs decreased from $2.11 to $1.44. Compensation was by far the largest expense category—40.6% on average—with marketing costs accounting for 15.3%. Older plans spent a somewhat smaller proportion on compensation and more on occupancy/depreciation/amortization.

Analysis of Trends in HMO Revenues and Expenses versus National Expenses

One question asked frequently by employers is how well HMOs control their costs compared with other forms of health insurance. To answer this question, we looked at 110 plans of all ages that provided financial data for 3 consecutive years, 1987 through 1989.[20]

In absolute spending, HMOs compare very favorably, with PMPM expenditure levels half that of the national average.[21] Exhibit 7 shows the average

Exhibit 7

Trends in PMPM Revenues, Expenses, Operating Income and Net Income, All Plans and National Comparison, 1987–1989

	1987	1988	1989
REVENUES[1]			
Mean	$74.54	$80.83	$94.26
Median	71.88	76.82	89.73
EXPENSES[1]			
Mean	77.09	83.20	93.10
Median	74.30	78.17	87.04
OPERATING INCOME[1]			
Mean	– 1.75	– 1.61	1.28
Median	– 0.73	– 0.01	2.11
NET INCOME[1]			
Mean	– 2.51	– 2.18	0.96
Median	– 0.67	0.03	1.32
NATIONAL HEALTH SPENDING[2]			
Mean	157.25	171.75	189.50

Notes:
1. 110 plans reported financial data for all three years.
2. Total national health expenditures per capita, on a monthly basis, excluding research and construction (*Health Care Financing Review*, Winter 1990).

Sources: GHAA's Annual HMO Industry Survey, HCFA and median PMPM costs for 1987-1989 for the 110 plans completing the financial portion of the Annual HMO Industry Survey all three years. Median expenses increased 5.2% from 1987 to 1988, and 11.3% from 1988 to 1989, or 17.1% over the 2-year period; the mean expenses per capita in HMOs increased 20.8%. In contrast, national medical expenses per capita increased 9.2% and 10.3% respectively, or 20.5% over the 2-year period. These figures indicate that costs for the median HMO increased somewhat more slowly in HMOs than in the nation from 1987-1989; the average performance (taking into account magnitudes within plans) was about the same.

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[20] The distribution of plans which responded all three years does not reflect that of the total respondents. These 110 plans are more likely to be staff and group models, to have 50,000 or more members, and to have been in operation 8 years or more in 1987.

[21] National data represent the most recent estimates of total health care expenditures, less research and construction (Helen C. Lazenby and Suzanne W. Letsch, "National Health Expenditures, 1989" *Health Care Financing Review* 12: 1-26, Winter 1990). The fact that HMOs enroll a lower proportion of the elderly (who in turn tend to have greater expenditures) probably explains a portion of the difference in absolute spending (see Volume 2 of the *Profile* for information on enrollment by age), as does the fact that HMO benefits (like commercial insurance) are not designed to cover long-term care. (Nursing homes, however, account for only about 8 percent of the nation's health care dollar). These considerations are less relevant to the comparison of increases in per capita spending, as the noted factors are likely to have remained reasonably constant across the years compared.

We also looked at trends in revenues, operating income, and net income. The mean and median values for both net and operating income changed from losses to surpluses over the 3-year period. The reason is evident from comparing the rate of change in revenues to the rate of change in expenses: HMOs were able to increase revenues at a higher rate than their increase in expenses (the average increase in revenues was about 26% over the 3 years while expenses for the period increased about 21%), thus making up the shortfalls in 1987 and previous years. (The median increase of 17% in expenses compares to 25% in revenues). We would expect HMOs to try to maintain this pattern in 1990 and beyond until profit margins stabilize at some value comfortably greater than breakeven.

Medicare Contract Revenues and Expenses

In December 1989, 1,842,555 Medicare beneficiaries were enrolled in HMOs through formal contracts with the federal government. There is tremendous interest in whether or not HMOs gain or lose money on their Medicare members. This question has been difficult to answer, because HMOs cannot always apportion their costs, especially administrative costs, between their Medicare and non-Medicare members. However, 51 HMOs in operation for more than 3 years were able to report total Medicare expenses and combined Medicare revenues (government payments, beneficiary premiums, and beneficiary copayments for office visits or other services). These plans included 27 plans with risk contracts, 5 with cost contracts, 9 with health care prepayment plan (HCPP) contracts, and 6 with noncontract Medicare supplements. The respondents with risk contracts held 21% of all risk contracts effective December 1989, and enrolled 32% of all risk enrollees.

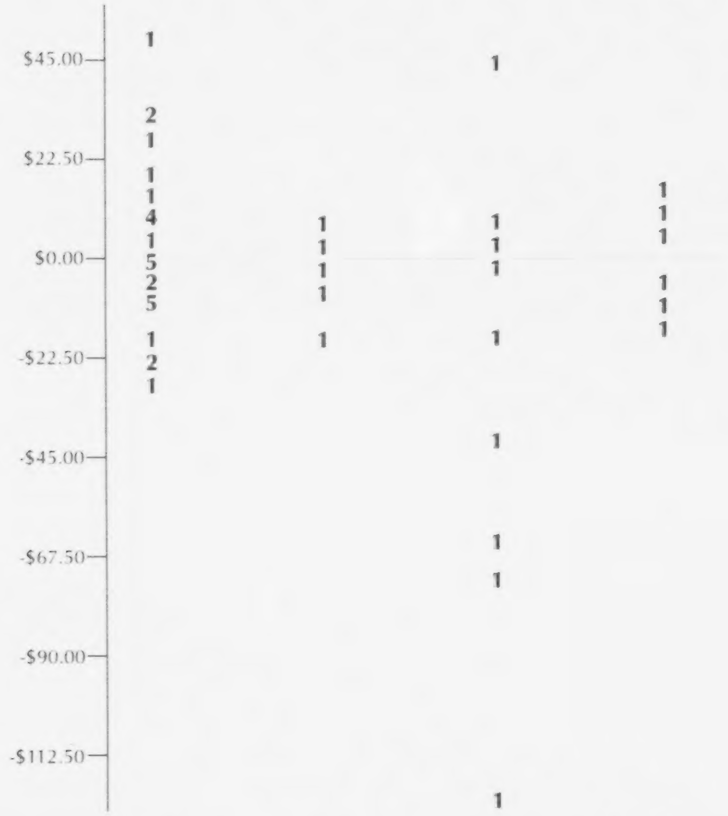
Aggregate financial performance for the Medicare members ranged widely. Twenty-two of the plans (43%) reported losses ranging from -$76,000 to -$7 million; two (4%) broke even, and 27 (53%) reported operating surpluses of $30,000 to $13 million.

The median performance on a per member per month basis was breakeven ($0.00 PMPM), although the average was a loss of -$3.68 PMPM. The dispersion of the surpluses and losses for all four types of contracts, shown in Figure 7, illustrates the difficulty some plans encounter when projecting costs for the Medicare population and setting an appropriate premium. For example, the figure shows that about half of the risk contractors had a surplus, while half had losses (52% versus 48%). About 15% of the risk contractors lost $15 PMPM or more in 1989, while 19% had a surplus of at least $15 PMPM, 33% lost less than $15 PMPM, and 33% had a surplus of up to $15 PMPM.

HCPPs, in theory, have the least financial risk of the three types of Medicare contracts, because they are retroactively capitated on the basis of their actual cost of providing some or all of Part B (physician) services. The HMO's only exposure is for the non-Medicare covered services it provides (such as prescription drugs, physical examinations, eyeglasses, hearing aids, etc.) and for the Medicare Part A and B deductibles and copayments. Five out of nine reporting HCPPs (56%) lost money on their Medicare members in 1989, with one plan losing over $100 PMPM. One the other hand, one HCPP did nearly as well as the best-performing risk contractor.

The six plans with Medicare supplements (prepaid care for Medicare beneficiaries that is not offered under an HCFA contract) also showed mixed financial performance, with half showing a surplus and half showing a loss. These plans probably are reimbursed by HCFA as a group practice, with fee-for-service billing.

Figure 7
Distribution of Financial Performance by Type of Medicare Contract, Plans Over Three Years Old, 1989



Type of Contract	Risk	Cost	HCPP	Supplement
Mean	$3.28	(-$1.77)	(-$28.33)	$3.28
Median	$0.45	$0.85	(-$17.65)	$3.31
N	27	5	9	6

Source: GHAA's Annual HMO Industry Survey

Exhibit 8

Financial Performance of Medicare "Product Line" Versus Non-Medicare Business and Overall Performance, Plans Over Three Years Old, 1989

	NON-MEDICARE	
	Surplus	**Loss**
Surplus	45%	12%
Loss	41%	2%

	OVERALL	
	Surplus	**Loss**
Surplus	51%	6%
Loss	33%	10%

Note: 49 plans provided Medicare expenses
Source: GHAA's Annual HMO Industry Survey

We also compared the financial performance of the Medicare "product line" against the non-Medicare product line (Exhibit 8). The average combined revenue for Medicare members was $218.61 PMPM, compared with the average revenue from non-Medicare members in the same plans of $87.13 PMPM. The average Medicare expenditure was $222.76 PMPM, compared with non-Medicare expenditures of $85.64 PMPM.

Of 49 plans reporting detailed Medicare expenses, seven plans (14%) lost money on the non-Medicare side. Of these seven, six showed a surplus on the Medicare side that partially or fully offset the non-Medicare losses. In three cases, the Medicare surplus allowed the plan to report a positive net income which otherwise would have been reported as a loss. Twenty of the 49 plans (41%) reported a surplus on their non-Medicare business but lost money on Medicare. In only three cases, the plan lost more on Medicare than it made on non-Medicare, resulting in a net loss for the year that, without Medicare, would have been positive. The remainder of the 49 plans (22 plans, or 45%) made a surplus on both their Medicare and non-Medicare lines of business. Three of these reported a higher surplus from Medicare business than from non-Medicare business.

From this information, we may conclude that an HMO's financial performance on its private sector accounts does not necessarily predict how well it will do on its Medicare account. While 45% of plans with a private sector surplus also had a Medicare surplus, a nearly equal percentage (41%) of plans were subsidizing Medicare losses from surpluses in their private sector accounts. This may occur because the revenues for the private and Medicare accounts are established in totally different ways, with private account revenues based on the HMO's cost of doing business, and Medicare revenues based on the federal government's local fee-for-service reimbursement rates.

We were interested in learning the relationship between Medicare revenues and expenses and the percentage of Medicare enrollees in the plan. In the 54 plans that reported combined Medicare revenues and Medicare expenses, 1989 Medicare revenues accounted for 16.0% of total plan revenues on average (median 12.2%), although average Medicare enrollment was only 9.6%. Similarly, the average 1989 Medicare expense was 16.3% of total expenses (median 12.6%). Thus, Medicare members have a financial impact that is about 50% greater than their size.

We analyzed the distribution of Medicare expenses among hospitals, physician services, and administrative services (Table 8). Hospital expenses are roughly equivalent to the cost of providing Medicare Part A benefits, and physician services are roughly equivalent to the cost of providing Medicare Part B benefits. The expenses are not exactly the same as would be incurred in the fee-for-service sector for several reasons: (1) HMOs report administrative expenses separately, rather than folding them into a package of services; (2) HMOs include the out-of-pocket copayments (in 1989, the first $75 annually of physician payments, plus 20% copayments for Part B services thereafter, and $560 deductible for hospital services) in their expenses; (3) HMOs account for the services at their full cost, while the federal government pays for many Part A and Part B services on the basis of a price schedule (or payment method) that may be considerably less than the full cost.

A confounding factor in the data as we've reported it in previous editions of the *HMO Industry Profile* is that health care prepayment plans and Medicare supplement plans will not report all of the Part A costs of care, because the federal government pays the hospitals and skilled nursing facilities directly. Rather, the HMO incurs only the expenses of the Part A copayments and deductibles. This led to an understatement of the actual cost of care incurred by the Medicare member and reported under hospital expenses.

In this edition, we have corrected for contract type. Table 8 shows the mean expenses for risk contractors and for cost or HCPP contractors, separately. Mean hospital expenses PMPM are more than eight times higher for risk contractors than for cost/HCPP contractors. Mean physician expenses PMPM are slightly lower for risk contractors than for cost/HCPP contractors ($111.43 versus $125.71); administrative expenses PMPM are somewhat higher for risk contractors ($20.76 versus $16.58).

One interesting finding among the 18 risk contractors is that the mean physician and total expenses PMPM increase with the plan's length of operation. One plausible explanation is that older risk contractors have a large number of "old" elderly—that is, members over age 75—who may have originally enrolled in the HMO when under age 65. The opposite pattern tends to appear for the 11 cost/HCPP contractors, however.

Medicaid Revenues and Expenses

We asked HMOs to describe the type of Medicaid enrollment in their plans, if any. Twenty-five percent of respondents reported that they enrolled Medicaid recipients, mostly (79%) through the AFDC (Aid to Families with Dependent Children) and similar programs (i.e., women and children). Six percent enrolled recipients through other programs, and 15% enrolled recipients through AFDC as well as other programs. The number of enrollees ranged from 3 to 59,475.

About half the HMOs with Medicaid members were unable to provide any expense data solely for Medicaid recipients. Thirty HMOs were able to provide at least total Medicaid expenses. The aggregate financial performance ranged from a loss of $4.7 million (-$48.53 PMPM) to a surplus of $5.1 million ($20.49 PMPM). Half the HMOs reported surpluses and half reported losses. The mean performance was a loss of -$5.71 PMPM.

Of the 28 plans reporting Medicaid revenues and expenses, 36% lost $10 or more PMPM, 14% lost less than $10 PMPM, 39% had a surplus of $10 PMPM or less, and 11% had a surplus of $10 PMPM or more. A listing of the PMPM surplus or loss by state showed no patterns; some HMOs were able to do very well under the state's payment rates while other HMOs in the same state suffered substantial losses.

Table 9 shows the dollar expenses by category and their distribution for the 19 HMOs that were able to report more detailed expense data. The 1989 distribution changed somewhat from that in 1988, with more being spent on physician services and less on administration.

V. 1989 FINANCIAL RATIOS

This chapter describes the 1989 financial ratios of the HMO industry as defined in the "Guide to Detailed Tables" that precedes the tables. Most tables include industry-wide means, medians, 25th and 75th percentiles; most also include separate means by plan characteristics for profitable and unprofitable established plans. Five types of ratios are described: rates of return, liquidity ratios, capital structure measures, activity ratios, and profitability ratios. Although the ratios are presented separately, financial analysis typically involves consideration of the interactions and patterns among them to evaluate the performance of a plan or industry.

Unless otherwise noted, statistics refer to established plans.

Rates of Return

Table 10 presents mean gross and net rates of return on assets, revenues, and equity. All rates of return reported in the text include plans reporting negative income, as excluding them would give a more positive picture of the industry than is actually the case.[22] Rates of return on equity exclude plans with negative net worth to avoid the problem of a plan with both negative income and negative worth appearing the same as a plan with positive values on both. The table also presents rates of return separately for plans with positive income and with negative net income.

The rate of return on assets (ROA) measures the gross income per dollar of investment; the rate of return on revenues (ROR) measures the gross income per dollar of revenue; and the return on equity (ROE) measures the gross income per dollar of equity. Typically, a company desires positive returns. If it has typical equity for its plan characteristics and if ratios are above the industry median, the plan is likely to be in a relatively strong financial position.

Since gross income is the numerator for each of these three ratios, whether gross income is positive or negative in any given year will influence heavily whether rates of return are positive or negative in that year. In 1989, mean rates of return on each ratio were positive for established plans, although small in magnitude. The mean gross returns on assets, revenues, and equity were .008, .003, and .007 respectively.[23] The medians were .045, .014, and .248, which indicates that most plans did better than the means indicate. These statistics are considerably improved from 1988, when average rates of return were all negative.

Gross rates of return varied by plan size and age (Figure 8). Mean rates of return were positive for all but the smallest plans; means did not vary considerably or consistently by size among plans with 20,000 members or more. Mean rates of return were negative for younger and for new plans, and generally positive for older plans. Plans 16 or more years old had somewhat lower rates of return in 1989 than those 8-15 years old; this did not occur in 1988. These relationships could explain why mean rates of return also tended to be negative in 1989 for group and IPA model plans, for plans owned by Blue Cross and Blue Shield organizations, commercial insurers, and national HMO companies, and for plans that were part of a multistate organization.

Liquidity Measures

Liquidity measures show the ability of HMOs to meet short-term financial obligations. These are presented in Table 11.

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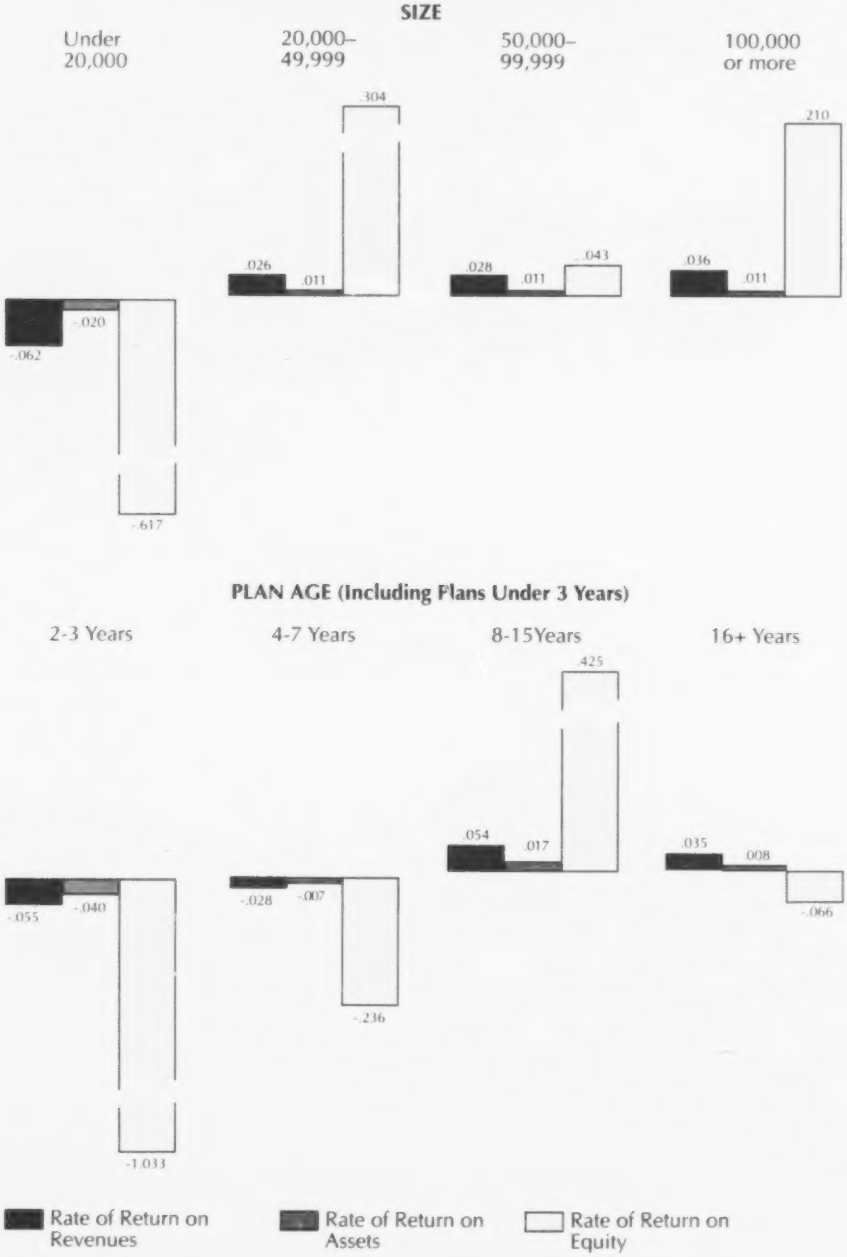
[22] The same procedure was followed with 1987 and 1988 financial data included in previous editions of the *HMO Industry Profile*.

[23] To compare these to returns sometimes reported, readers may need to multiply these by 100 to develop comparable figures for percentage return or return on the dollar.

Figure 8

Mean Rates of Return by Size and Age, Plans Over Three Years Old, 1989*



*Rates of return based on income before taxes and extraordinary items.
Source: GHAA's Annual HMO Industry Survey

The *current ratio* measures the ability to pay current claims of short-term creditors from cash or highly liquid holdings, such as marketable securities. In most cases, an HMO desires to have a number close to but greater than 1.00—that is, its liquid funds are just enough to cover its short-term obligations. The current ratio is a somewhat crude measure of liquidity, because it does not consider the liquidity of individual components of the current assets.

In 1989, the mean and median current ratios were 1.06 and 1.08; half the plans had ratios between 0.90 and 1.23. Profitable plans had a mean current ratio of 1.14 and unprofitable plans a mean ratio of 0.91. Compared to 1988, the mean current ratio was higher in 1989 (1.06 versus 0.94) and a smaller share of plans had ratios below 1.0.

Days premium receivable indicates the number of days in the average collection period. In 1989, the mean number of days that premiums were late was 21.8 (median 14.9). Means varied considerably by plan characteristic within both profitable and unprofitable plans; this could reflect variability in payment policies based on different mixes of public and private accounts within plans. Since HMOs are, by definition, prepaid plans, the days premium receivable should be zero. In practice, however, individuals who pay monthly or quarterly may be late and employers may delay monthly payments while accretions and deletions are reconciled. If this measure is lengthening, the HMO may encounter cash problems in the future. Unprofitable plans had considerably higher days premium receivable than profitable plans (26.3 versus 19.4).

Compared to 1988, days premium receivable was about seven days higher among unprofitable plans in 1989 (26.3 versus 19.8), but only about a day higher among profitable plans (19.4 versus 18.2). That is, the average rose considerably among unprofitable plans. Because financial performance generally improved in the HMO industry in 1989, those remaining unprofitable in 1989 may be more likely to be experiencing internal problems than in 1988, when many plans in the industry faced financial losses.

Days cash on hand measures the number of days an HMO could meet its average daily expenditures with cash on hand. It shows how long an HMO could continue to operate if all revenue sources suddenly stopped. The desirable number of days cash on hand for an HMO is a financial policy decision that varies widely across the industry. This is illustrated by the difference between the mean and median days cash on hand (16.1 versus 7.2).

Days cash on hand decreased with increasing plan size, from 20 days for the smallest plans to 12 days for the largest plans. Smaller (and traditionally riskier) plans may need to keep more cash on hand to pay suppliers less willing to extend credit to them; larger plans with substantial cash, on the other hand, may be more likely to invest in short-term securities that generate interest rather than maintain sizeable cash accounts. Networks had a larger number of days cash on hand than any other model (22 days); group model plans had the fewest (9 days). Plans that are part of multistate organizations had fewer days cash on hand than other plans (9 versus 19 days). Compared to those of other ownership, days cash on hand was lowest in plans owned by national HMO companies (6 days) and by Blue Cross and Blue Shield organizations (10 days).

Unprofitable plans had fewer days cash on hand than profitable plans (13 versus 18) and the spread between days cash on hand and days premiums receivable also was greater (-13 versus -2). This means that unprofitable plans were relying more on prompt payment to finance their day-to-day operations.

Compared to 1988, the mean days cash on hand in 1989 was about 2 days lower and it was exceeded by the days premium receivable by a larger amount (6 days versus 1 day).

Days claims and IBNR payable indicates the length of time it takes the HMO to pay its medical bills. (Nonmedical accounts payable, such as for computer support and reported accrued medical incentive pool, are not included in this measure). Low values of this ratio are better than high ones; if an HMO takes too long to pay its bills, it may endanger its trade and bank credit. Ideally, an HMO's days payable will be just long enough to take advantage of bank float and earned interest on its funds without losing the opportunity for discounts on prompt payment (often 10-30 days).

Plans averaged 53.1 days (median 54.0) to pay their bills. Group model plans (33.8) had fewer days in claims payable; IPAs had the highest of all models (60.8), perhaps because IPAs pay a larger proportion of covered services by the visit. Plans in operation 16 years or more had lower days claims and IBNR payable (38.7) than younger plans. Commercial insurer-owned plans had the highest days claims and IBNR payable (66.2) and those owned by national HMO companies the lowest (46.3).

Compared with 1988, the average days claims and IBNR payable increased in 1989 by about 4.5 days.

Capital Structure Ratios

Capital structure measures, shown in Table 12, assess the long-term solvency of a firm. Measures are displayed by model type in Figure 9 because denominators of most of these ratios, i.e. equity and assets per member, vary across models. This reflects, in part, the more extensive ownership of medical facilities by staff and group model plans. As shown in Exhibit 9, total assets per member (as well as per member per month) were higher for staff ($387.4) and group ($354.9) model plans than networks ($300.9) or IPAs ($311.3).

The *equity financing ratio* shows the proportion of total assets that have been financed through equity rather than credit. The mean value was .181 and the median .192. Averages were positive for each type of plan, which means that average net worth (i.e., equity) was positive. The average equity financing ratio was 0.23 in profitable plans but only 0.07 in unprofitable plans. Compared to 1988, the equity financing ratio was higher in 1989 (.181 versus .120). Because average assets per member per month did not increase between the two years, this means that plans improved their equity position in 1989.

The ratio of *long-term debt to equity* is a general indication of the credit-worthiness and financial risk of an HMO. In 1989, the mean ratio was 0.38 but the median was 0.00. This reflects the fact that many plans (e.g., 26% in 1988) carry no long-term debt.[24] As might be expected, the ratio varied by model, with staff (0.81) and group (0.76) models more reliant on long-term debt than networks (0.10) and IPAs (0.26), which tend not to own medical facilities whose capital expenses must be directly financed.

Exhibit 9
Total Assets Per Member, and Member per Month, Plans Over Three Years Old, 1989

	Per Member	Per Member Per Month		Per Member	Per Member Per Month
ALL PLANS > 3	$326.4	$27.62	**TAX STATUS**		
			Nonprofit	$333.2	$28.51
MODEL			For-profit	321.4	26.97
Staff	$387.4	$32.95			
Group	354.9	30.51	**OWNERSHIP**		
Network	300.9	25.38	Blue Cross/Blue Shield	$323.4	$25.92
IPA	311.3	26.21	Commercial Insurer	480.1	38.71
			National HMO Chain	328.9	28.11
SIZE			Independent	310.4	27.28
0–19,999	$306.2	$25.49	Provider-sponsored	267.7	23.10
20,000–49,999	313.0	26.33			
50,000–99,999	320.6	27.12			
100,000+	367.7	31.76			
AGE					
4–7	$296.4	$25.06			
8–15	324.9	27.25			
16+	440.8	37.69			

Source: GHAA's Annual HMO Industry Survey

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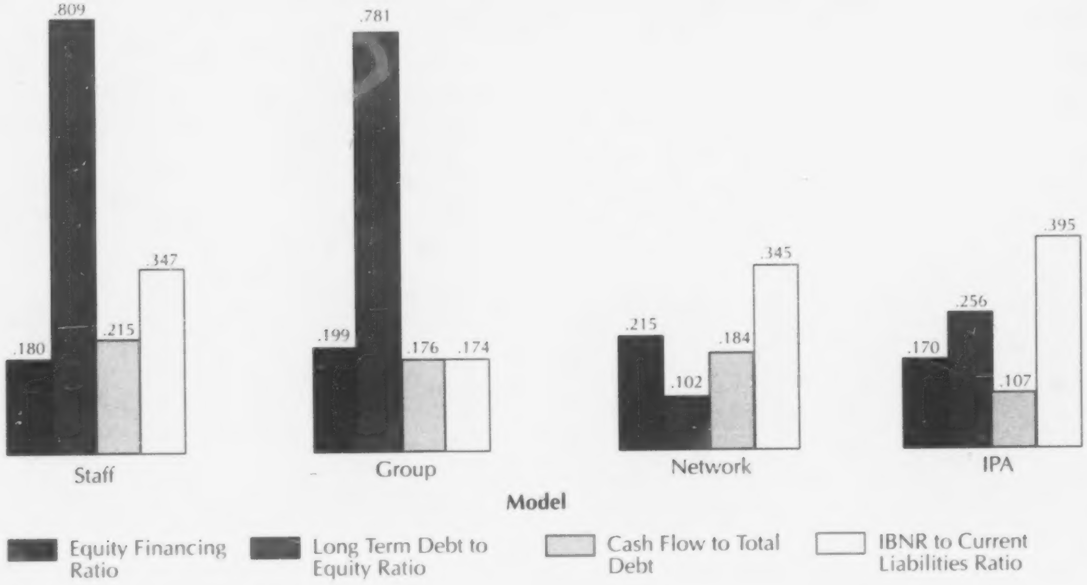
[24] Plans could differ in their uses of short- and long-term debt vehicles, with short-term debts substituted for long-term debts if long-term debt is difficult to secure. Empirical assessment of this issue is complex, because short-term debt dwarfs long-term debt (as discussed in the text), reflecting the ongoing cash needs of plans in terms of incurred provider and supplier liabilities and the like.

Figure 9
Mean Capital Structure Measures by Plan Model, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

Consistent with financial theories on the cost of capital, the long-term debt to equity ratio was lower in for-profit than nonprofit HMOs (0.20 versus 0.64). For-profit plans may prefer to finance funds through stock offerings, whereas nonprofit HMOs may prefer to finance funds by issuing tax-exempt bonds.

The average long-term debt ratio increased from 0.20 to 0.38 between 1988 and 1989. This probably reflects changes in a minority of plans, as the median was virtually unchanged.

Because HMOs represent a mixture of financing and delivery systems, their debt structure reflects both aspects, with short-term obligations to cover operating costs for delivery of contracted benefits, for example, and long-term capital debts both for facilities and, potentially, expansion or growth. In 1989, the total debt to equity ratio average was 5.0 while the long-term debt to equity ratio was 0.38—indicating that the average HMO had about twelve times as much short-term as long-term debt.

This varied widely by model, with staff and group model plans having a considerably lower ratio of total to long-term debt (4.7 and 9.4, respectively) than networks or IPA models (31.3 and 20.2, respectively). The total debt to equity ratio was 3.8, 7.1, 3.1, and 5.2 respectively for staff, group, network, and IPA models. The total debt to equity ratio was reasonably similar by tax status, at 5.5 for nonprofit plans and 4.6 for for-profit plans.

Cash flow to total debt indicates the ability to cover future debt repayments. The average ratio was 0.141 and the median was similar (0.143). One problem in analyzing this ratio is that the NAIC "Orange Blank" does not separate depreciation from occupancy costs. This may distort the differences for plans of different characteristics and obscure actual differences or create new ones.

Ratios were positive for plans of each characteristic. IPAs had a lower ratio (0.107) than other model types (Figure 9). Cash flow improved with plan age; it was lowest and barely positive (0.06) in the smallest plans with under 20,000 members.

Compared to 1988, HMOs improved in their ability to cover future debt repayments through cash in 1989. The mean ratio of 0.141 compares to -0.007 in 1988; the median of 0.143 compares to 0.064.

The *tangible assets financing ratio* shows whether, in theory, a plan's total assets would cover its liabilities if the plan were liquidated; intangible assets, such as good will, are excluded. Values greater than one indicate more liabilities than tangible assets. The measure is based on data from balance sheets; it is subject to the usual limitations connected with asset valuation. The average and median ratios were 0.828 and 0.809 in 1989. Averages for unprofitable plans were higher than for profitable plans (0.93 versus 0.78); a few categories of unprofitable plans had averages at or above 1.0 in 1989.

Reserves as a portion of total assets was calculated because some states are imposing higher reserve requirements.[25] The statutory reserves generally are to be used to pay providers for services rendered to enrollees whose bills have not been paid at the time an HMO becomes insolvent.

The mean and median reserves differed greatly (2.6% versus 0.6%). Many HMOs reported no reserves on this line (restricted assets). This value varies widely across plans because each state has different requirements; allowances for parental assets or guarantees also vary. Reserves accounted for a larger percentage of the assets of smaller than larger plans (3.6% for plans under 50,000 versus 1.4% for larger plans).

This ratio was slightly higher in 1989 than 1988 (2.6% versus 2.4% for means; 0.6% versus 0.4% for medians).

IBNR as a percentage of current liabilities provides a measure of the incurred but not yet reported (i.e., billed) liabilities faced by a plan. High values may indicate that providers are slow in billing; different values also are to be expected depending on the structure of the plan and its reliance on capitated advance payment to providers (or salaries) versus individual service billings. The mean value was 35% and the median 36% in 1989.

On average, group model plans had a lower IBNR ratio (17%) than other models. Although it may appear that staff models also should have lower rates because they rely on employed physicians, these plans were more likely than others to use a mix of models (see Chapter III of this report). Their IBNR rates were somewhat lower (30%) than networks (35%) and IPAs (40%).

This ratio increased from 31% to 35% between 1988 and 1989.

Equity per member shows the equity of the HMO on a per-enrollee basis. Along with total assets, this measure is often used to value an HMO for acquisition. The measure differs from that used for 1988, which expressed equity in terms of member months. In 1989, the mean equity per member was $70.01 and the median was $54.10; considerable variation was shown across plans. The middle half of the plans (i.e., the interquartile range) had an equity per member falling in the $22.53 to $108.48 range.

Staff model plans had the highest average equity per member at $90.44, followed by groups ($75.48), networks ($68.75), and IPAs ($64.26). By age group, the oldest plans (16 or more years) had the highest average equity ($97.14).

Activity Ratios

Activity ratios measure the financial efficiency of the HMO. Three of these ratios are shown in Table 13: premiums receivable turnover, current asset turnover, and total asset turnover.

Premium receivable turnover is the annualized portion of the monthly premium income that is not yet collected (i.e., receivable). If this ratio is large, the HMO must raise working capital from nonpremium sources such as copayments or investments, or incur additional debt. The mean and median values were 0.72 and 0.49 in 1989. Ratios were higher for unprofitable than profitable plans (0.88 versus 0.63). Turnover ratios increased somewhat in 1989, which is consistent with the increase in days premiums receivable.

Current asset turnover shows the efficiency of the investment in current assets with respect to the generation of revenue. It is calculated by dividing operating revenue by current assets. The mean and median rates were 5.9 and 4.6 in 1989. Group model plans had a higher rate (10.1) than other models, whose rates were about half as much. Unprofitable HMOs turned over current assets more rapidly than profitable plans (7.1 versus 5.3). This was also the case in 1988 and reflected the disproportionately lower (and sometimes negative) current assets in unprofitable plans.

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[25] The ratio used here and for 1988 financial data differs from previously published data on 1987 financials (1989 edition of the Profile). Rather than looking at the liability side of the balance sheet, this ratio looks at the asset side. This ratio conforms more closely to the definitions for "reserves" in the NAIC Orange Blank.

Compared to 1988, this ratio was slightly lower in 1989 (5.9 versus 6.3 mean; 4.6 versus 5.5 median).

Total asset turnover indicates how efficiently the HMO uses its assets. The higher the figure, the greater the efficiency. However, comparisons will also be affected by the nature of assets held by plans of different types (e.g., models). The mean was 3.8; the median was 3.6. The oldest plans had lower rates on average (2.9) than younger plans; generally, this ratio did not vary much or predictably by type of plan. The average total asset turnover rate in 1989 was similar to 1988 (3.8 versus 4.0).

Profitability Ratios

Table 14 presents expense ratios and profit margins.

The *health care expense ratio* shows what proportion of total operating revenue is spent providing health care.[26] The mean and medians were each 89% in 1989, with half the plans falling between 85% and 93%. Group (92%) and, to a lesser extent, staff (90%) model plans had higher health care expense ratios than IPAs and networks (88% each) although the differences were not large (Figure 10). Ratios were higher for nonprofit than for for-profit plans (91% versus 88%); plans owned by national HMO companies (91%) also had higher ratios than others.

Profitable HMOs had a lower health care expense ratio than unprofitable HMOs (86% versus 94%), which illustrates that a higher health care expense ratio does not necessarily indicate a more fiscally sound plan. For example, the highest health care expense ratios were for both the smallest plans (91%) and largest plans (90%).

From a public policy perspective, it generally is regarded as desirable that almost all revenues be returned in health care benefits; this must be balanced against the needs of an effectively managed plan with a margin to cover administrative expenses and unforeseen contingencies and/or returns. Some plans with higher health care expense ratios may be experiencing difficulties in controlling medical expenses or in establishing premiums sufficient to cover expenses. Although no clear benchmarks exist, two analysts have suggested, for example, that health care expenses of 85% of revenue is a useful norm for HMOs, except for very large plans that may be able to control costs at higher levels.[27]

Health care expense ratios may vary from year to year if the relationship between revenues and expenses (i.e., profitability) changes. Compared to 1988, the health care expense ratio declined in 1989 (89% versus 92%). The spread between profitable and unprofitable plans on this ratio remained the same (8%) but each was about two points lower in 1989.

The *administrative expense ratio* calculates total administrative expenses per dollar of operating revenues. The mean and median administrative expense ratio for plans was 12.8% and 12.0% in 1989; half the plans fell between 9.7% and 15.5%.

The administrative expense ratio was higher for network and IPA model plans than for staff and group model plans (Figure 10). This could, in part, reflect variation by model both in plan size and in accounting for expenses between the medical and administrative components (e.g., accounting for quality assurance or utilization oversight expenses). This ratio declined from 14% in the smallest plans to 11% in the largest plans; it similarly declined with increasing age. Administrative expense ratios were higher in for-profit than nonprofit plans (14% versus 12%), in the South Atlantic and Mountain regions

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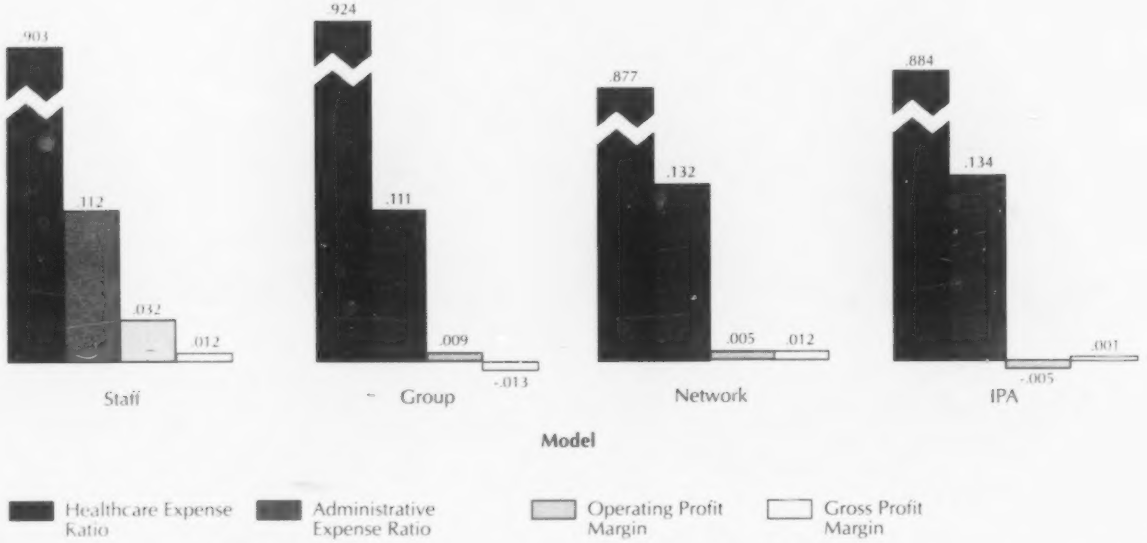
[26] In indemnity insurance, this concept is often referred to as a "medical loss ratio." In calculating this ratio, there are several alternative formulations for the revenues and expenses to be compared. Because traditional insurance involves bill payments, these plans can be compared in terms of payouts—percentages of premiums returned as payments for health care claims. Because HMOs represent delivery systems offering prepaid comprehensive benefits, an alternative formulation is best used. This analysis compares total health care expenses to operating revenue (which includes premiums, copayments and fee-for-service revenues and funds from coordination of benefits, etc.); nonoperating sources of revenue are excluded. In total, health care expenses represent 87.5% of total HMO revenue, on average.

[27] Joseph Coyne and David M. Meadows "Tell-tale symptoms that can help diagnose an ailing HMO" *Health Week* p. M-7, January 14, 1991.

Figure 10
Mean Expense Ratios and Profit Margins by Plan Model, Plans Over Three Years Old, 1989



Source: GHAA's Annual HMO Industry Survey

(14%), and in plans owned by commercial insurers (16%).

The average administrative expense ratio was about the same in 1988 and 1989, as was the spread as measured through the interquartile range (i.e., 25th to 75th percentile of the distribution).

The *profit margins* show the percentage of each revenue dollar ultimately realized as income. The mean and median gross profit margins were 0.3% and 1.4% in 1989. On average, profitable plans had a positive margin of 3.7% while unprofitable plans had a negative margin of 6.4%, most of which represented operating losses.

The average contribution to income from operating sources was positive for each model type except IPAs. These experienced a small loss (i.e., operating profit margin), which was offset by other income so that the gross profit margin was essentially a breakeven situation. Conversely, group model plans, on average, experienced small operating gains that were offset by other losses, resulting in an average small, but negative, gross profit margin.

The smallest plans had considerably lower profit margins than other plans, with averages negative on all three measures. Although certain categories of plans experienced negative average profit margins, these were, in almost all cases, within a percentage or two of breakeven. This differs considerably from 1988, when several categories of plans had much higher average losses (e.g., losses averaging 4%-7%). This also is reflected in the improvement overall in gross profit margin between 1988 and 1989; the median went from -0.4% to 1.4% (mean from -3.2% to 0.3%).

VI. TRENDS IN THE SOLVENCY SURVEILLANCE INDICATORS

This chapter presents an additional form of analysis on the financial status of the HMO industry in 1989 and how it compares with 1988. The analysis focuses on Solvency Surveillance Indicators developed by National Association of Insurance Commissioners (NAIC) and National Association of HMO Regulations (NAHMOR). These indicators cover a range of performance measures proposed as useful in monitoring the financial health of HMOs. Averages for 1988 and 1989 are compared to identify changes; statistical tests of significance (paired t-tests) are employed to determine the level of confidence one can have that these changes reflect other than chance.

Because the plans responding to the survey have undergone some changes, the analysis in this chapter is based on comparisons restricted to plans reporting in both years (i.e., those plans providing both 1988 and 1989 data). Although this represents a subset of responding plans and thus may not be as generalizable, it provides a more internally valid assessment of change within individual plans. In presenting this analysis, results for these plans are compared with those previously described for all established plans responding to the survey in each year, where available. When the two forms of analysis agree, trends shown in the paired data can with greater confidence be generalized to the industry as a whole.

Exhibit 10 presents analysis of the averages on the 10 Solvency Surveillance Indicators; it also includes analysis of changes in assets per member and equity per member. Based solely on plans over 3 years old responding in both 1988 and 1989, the exhibit displays the means for each year, the probability the difference would be explained by chance, and the number of plans upon which each comparison is based. Generally, probabilities of 0.05 or less are considered statistically significant; differences of

Exhibit 10

Trends in Solvency Surveillance Indicators and Selected Other Measures, Plans Over Three Years Old, 1988–1989[1]

Indicator	Sample Size	1988	1989	p
1. Net profit margin	128	–0.0133	0.0160	.000*
2. Tangible net worth	124	$ 7,432,241	$9,829,060	.000*
3. Current ratio	124	0.9454	1.0135	.017*
4. Healthcare expense ratio	129	0.9127	0.8951	.004*
5. Administrative expense ratio	130	0.1209	0.1139	.013*
6. Tangible asset financing ratio	121	0.9107	0.8167	.000*
7. Enrollment level	134	129,406	135,832	.038*
8. Premium receivable turnover	124	0.6957	0.6273	.026*
9. Cash flow to total debt	113	0.0375	0.1702	.000*
10. Days claims and IBNR payable	122	46.58	46.99	.778
Other Measures				
Equity per member	125	$37.66	$65.51	.000*
Assets per member	126	$281.14	$330.50	.000*

1. Includes all plans over three years old in 1988 which also reported in 1989.

* Significant at the $p < .05$ level.

Source: GHAA's Annual HMO Industry Survey

0.10 are considered close to significant.

As shown in the exhibit, 9 of the 10 Solvency Surveillance Indicators examined showed improvement in 1989 compared with 1988; improvements were all statistically significant. The tenth indicator—Days Claims and IBNR Payable—had a very slight, nonsignificant, increase. This compares to 1988, when a similar analysis comparing 1987 and 1988 indicated that nearly all Solvency Surveillance Indicators improved, but few improvements were statistically significant (see 1990 edition). Both equity per member and assets per member also increased between 1988 and 1989. In most cases, the results of this analysis parallel the conclusions that would be drawn based on the cross-sectional comparison of all plans reporting in each year.

1. *Net Profit Margin*. Plans reporting both years showed a significant increase in average profit margins, from -1.3% to 1.6%. (This was one of the few ratios with statistically significant improvements in 1988.) Although plans reporting in both years had higher average net profit margins than all plans in each year, industry averages based on these plans also showed an improvement from -3.1% to 0.2% between 1988 and 1989. Improvements from 1988 to 1989 are based on operational changes, as the operating profit margin also improved for plans reporting in both years (-1.7% versus 1.4% in 1989).

2. *Tangible Net Worth*. Plans reporting both years showed a statistically significant increase in this measure, from an average of $7.4 million per plan to an average of $9.8 million per plan. (In 1988, tangible net worth, analyzed similarly, increased only slightly, and the change was not statistically significant).

3. *Current Ratio*. Plans reporting both years significantly increased their current ratio from an average of 0.95 to 1.01 between 1988 and 1989. This parallels the improvement from 0.94 to 1.06 based on data for all responding plans in each year. The situation in 1989 differs from 1988, when current ratios were basically unchanged from the year before.

4. *Health Care Expense Ratio*. The health care expense ratio declined significantly from 91.3% to 89.5% in plans reporting in both 1988 and 1989. Because ratios as high as 91% typically may be an indication of misalignment between expenses and revenue (see Chapter V), the decline can be interpreted positively. The decline in health care expense ratio among plans reporting both years parallels the decline among survey respondents as a whole (i.e., from 92% to 89%). These changes compare favorably against 1988, when there was no change in the health care expense ratios reported by those responding in both 1987 and 1988.

5. *Administrative Expense Ratio*. Administrative expenses represented an average of 11.4% of revenue in 1989 compared with 12.1% in 1988 among plans responding in both years, a significant decline. There was no apparent change in this ratio when results were compared in 1988 and 1989 for all plans reporting each year. Changes in responding plans each year may have limited the ability to detect improvements. Complete data from all established plans (not just those responding in each year) would be required to assess the extent to which the improvement experienced by the 130 plans reporting in both years can be generalized to the remaining plans in the industry. (Because larger plans are more likely to respond each year, improvements for these 130 plans account for a larger share of total expenses in the HMO industry than is reflected by the number of plans). The situation in 1989 was similar to last year's analysis of 1987 to 1988 changes, in which declines in the administrative expense ratios were detected in the paired analysis but not necessarily in the cross-sectional data for all responding plans (i.e., means decreased in 1988 but not medians).

6. *Tangible Assets Financing Ratio*. This ratio decreased significantly from 0.91 to 0.82 between 1988 and 1989 among plans responding in both years. The cross-sectional data for each year also show a decrease (0.90 to 0.83). Both forms of analysis showed a decline in this ratio between 1987 and 1988, although the results were not statistically significant in the paired comparison analysis that used this test.

7. *Enrollment Level*. The average enrollment level increased significantly from 129,406 to 135,832 for plans reporting in both years. This amounted to a 5.0% increase. Enrollment levels also increased in 1988 for plans reporting in both 1987 and 1988; the 10.5% increase in 1988 exceeded that of 1989.

8. *Premium Receivable Turnover.* Among plans reporting both years, this ratio declined significantly from 0.70 to 0.63 between 1988 and 1989. Parallel improvements are not shown in the averages for all responding plans in 1989 compared with 1988 (0.6 to .72). In 1988, the paired analysis also showed a decline that was close to but not statistically significant; the cross-sectional 1987 to 1988 results showed no change.

9. *Cash Flow to Total Debt.* This ratio increased significantly from 0.038 to 0.170 between 1988 and 1989 among plans reporting in both years, indicating an improvement in the ability of HMOs to cover future debt repayments from cash. This parallels the improvement shown in the cross-sectional data for all plans responding in each year (-0.007 to 0.141). This ratio did not improve between 1987 and 1988.

10. *Days Claims and IBNR Payable.* This ratio showed little change between 1988 and 1989 among plans reporting both years, with a nonsignificant increase from 46.58 to 46.99. Among all reporting plans, the ratio increased from 48.6 days to 53.1 days. (Because this ratio varies by model type, averages are likely to be affected by changes in the mix of models reporting.) The limited change in the paired analysis for 1988-1989 shows results similar to the paired analysis for 1987-1988, which also showed a small nonsignificant increase.

The improvements reflected in these indicators are also reflected in statistics on equity per member and assets per member. Among plans reporting in both years, equity per member increased 74%, from an average of $37.66 to $65.51; assets per member increased by 18%, from $281.14 to $330.50. Because equity per member and assets per member were calculated differently in the cross-sectional analysis for each year, the results cannot be compared directly.

The overall pattern of results reflected above substantiates the considerable improvement in the HMO industry's financial performance in 1989, which has been widely discussed in the trade press. Most encouraging, it suggests that improvements were not restricted to profitability measures (which have been the focus of the discussion), but extend into a variety of areas of operational performance within plans. Although such improvements were first evident in data for 1988, the 1988 data showed more limited improvements, generally focused on profitability measures.

Although analysis of future trends awaits the availability of additional data for 1990, preliminary indications—noted previously in Chapter IV—indicate that improvements are likely to continue and perhaps be more accelerated in 1990. Eighty-nine percent of those responding to GHAA's year-end member sample survey (reported in the *HMO Market Position Report*) anticipated an improved financial position in 1990 over 1989.

On the other hand, it should be noted that considerable variability across the industry exists on a number of measures. While the data strongly indicate that the industry as a whole is in a stronger position in 1989 than in previous recent years, plans with weaker financial performance remain. Some consolidation will probably continue in the industry, as these plans either become absorbed into other plans or, in certain cases, terminate operations.

DETAILED TABLES

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FINANCIAL DEFINITIONS

The GHAA Annual HMO Industry Survey instrument includes the definitions used on the National Association of Insurance Commissioners (NAIC) "Orange Blank"—a standard financial reporting form for HMOs required by many states.

In most cases, the components of the tables are self-evident. Below are definitions for variables and ratios which are less straightforward or which were created for purposes of this volume. Whenever possible, definitions coincide with the draft solvency surveillance indicators prepared by the National Association of HMO Regulators (NAHMOR) and current industry practices.

Table 4: Revenues

Other revenue
= reinsurance + interest revenue + other revenue

Table 5: Summary Expenses

Medical expenses
= physician services + other professional services + outside referrals + occupancy, depreciation and amortization + reinsurance + other medical + incentive pool adjustment

Hospital expenses
= inpatient + emergency room, out-of-area, other

Administrative expenses
= total administration

Table 6: Expenses

Physician expenses
= physician services + incentive pool adjustment

Table 10: Rates of Return

Gross return on equity
= (income before taxes and extraordinary items) ÷ total net worth

Net return on equity
= (income after taxes and extraordinary items) ÷ total net worth

Gross return on assets
= (income before taxes and extraordinary items) ÷ total assets

Net return on assets
= (income after taxes and extraordinary items) ÷ total assets

Gross return on revenue
= (income before taxes and extraordinary items) ÷ total revenue

Net return on revenue
= (income after taxes and extraordinary items) ÷ total revenue

Table 11: Liquidity Measures

Current ratio
= total current assets ÷ total current liabilities

Days premiums receivable
= (365 x premiums receivable) ÷ premiums

Days cash on hand
= (365 x cash) ÷ (total medical & hospital expenses)

Days claims and IBNR payable
=365 x (reported claims payable + not reported accrued inpatient claims payable + not reported physician claims + not reported accrued referral claims + reported accrued other medical) ÷ (total medical & hospital expenses)

Note: does not include reported accrued medical incentive pool or accounts payable.

Table 12: Capital Structure

Equity financing ratio
= total net worth ÷ total assets

Debt to equity ratio
= total long-term liabilities ÷ total net worth

Cash flow to total debt ratio

= (gross income + medical occupancy, depreciation, and amortization + administrative occupancy, depreciation, and amortization) ÷ (total current liabilities + total long-term liabilities)

Note: This ratio is not the standard financial ratio because the survey data and Orange Blanks do not separate depreciation from occupancy and depreciation costs. This probably distorts the differences among model types since, as shown in Table 12, IPAs and networks have lower occupancy costs than group and staff models.

Tangible asset financing ratio
= (total liabilities) ÷ (total assets - net intangible assets and goodwill)

IBNR ÷ current liabilities
= (not reported accrued inpatient claims payable + not reported physician claims + not reported accrued referral claims) ÷ current liabilities

Reserves ÷ total assets
= restricted assets ÷ total assets

Table 13: Activity Ratios

Premium receivable turnover
= (12 x premiums receivable) ÷ premiums

Current asset turnover
= operating revenue ÷ total current assets

Note: Operating revenue = total revenue - other revenue - interest revenue

Total asset turnover
= operating revenue ÷ total assets

Table 14: Profitability Ratios

Health care expense ratio
= total medical and hospital expenses ÷ operating revenue

Administrative expense ratio
= total administration expenses ÷ operating revenue

Gross profit margin
= income before taxes and extraordinary items ÷ total revenue

After tax profit margin
= net profit and extraordinary items ÷ total revenue

Operating Margin
= (operating revenue - operating expenses) ÷ total revenue

Note: This is not the standard ratio. Ordinarily, operating expenses = total expenses - depreciation. Since the survey data and Orange Blanks do not separate depreciation from occupancy and depreciation costs, the numbers are smaller than they should be because occupancy, depreciation and amortization were all deducted from total expenses.

GUIDE TO USING THE DETAILED TABLES

All detailed tables contain statistics for all responding plans and separate statistics for those plans with more than 3 years' operational experience. *Caution should be used in examining data in tables to be sure that the data used are for the desired plan age group.* Tables present data by plan age as either separate columns or as sequential rows of data. The data are ordered with totals first for all plans, followed by data for plans over 3 years old.

Most tables provide separate statistics for plans of various characteristics. The characteristics are consistent across tables and include model, region, size, plan age, tax status, federal qualification status, ownership, and multistate organization

Definitions used in arraying plans by these characteristics are given below.

Model Type (Defined in the questionnaire)

Plans were asked to identify which model best reflects the *predominant* components of the plan.

Staff:	An organized prepaid health care system that delivers health services through a salaried physician group that is employed by the HMO unit.
Group:	An organized prepaid health care system that contracts with one independent group practice to provide health services.
Network:	An organized prepaid health care system that contracts with two or more independent group practices to provide health services.
IPA:	An organized prepaid health care system that contracts directly with physicians in independent practice, with one or more associations of physicians in independent practice, and/or with one or more multispecialty group practices (but predominately organized around solo/single specialty practices) to provide health services.

Region (GHAA-coded based on the state that the plan indicated had the largest share of its enrollment: groupings are based on U.S. Census regions)

New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

Mid-Atlantic: New Jersey, New York, and Pennsylvania.

South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South Central: Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas.

Mountain: Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, and Wyoming.

Pacific: Alaska, California, Guam, Hawaii, Washington, and Oregon.

Size

The size of the plan was based on collapsed codes from plan-reported data on total enrollment as of December 31, 1989.

Tax Status

Tax status was requested as of March 31, 1990.

Federal Qualification Status

Federal qualification status was based on plan-reported data. Plans indicating that they were federally qualified in some service areas were included in the federally qualified group. Federal qualification status was requested as of March 31, 1990.

Ownership

Ownership was based on recoding from plan-reported data. "Independent" refers to plans independently owned and operated and includes plans reported under "other" in previous editions of the Profile. These include cooperatives, university-sponsored plans, publicly sponsored plans, and others. "Provider-sponsored plans" refers to plans owned by physicians, hospitals, or both physicians and hospitals, either as independent plans or as parts of chains.

Multistate Organization

Multistate classification defines whether or not a plan is part of an organization owning different HMOs in two or more states. Single-entity HMOs with a contiguous service area in two states were consistently classified as a single state organization. Responses were audited and corrected for consistency among plans of the same ownership, but otherwise are based on respondent classification.

Table 1 Selected Characteristics of Responding HMOs Used in the Financial Analysis with More Than 1,000 Enrollees, by Plan Age, 1989[1]

	All Plans			Plans >3 Years			Plans ≤3 Years		
Selected Characteristics	**# of Plans**	**% of Plans**	**% of Enrollees**	**# of Plans**	**% of Plans**	**% of Enrollees**	**# of Plans**	**% of Plans**	**% of Enrollees**
TOTAL	277	100.0	100.0	242	100.0	100.0	35	100.0	100.0
MODEL									
Staff	35	12.6	13.1	33	13.6	13.5	2	5.7	5.0
Group	36	13.0	36.5	35	14.5	38.0	1	2.9	5.7
Network	35	12.6	13.6	30	12.4	13.9	5	14.3	7.4
IPA	171	61.7	36.7	144	59.5	34.6	27	77.1	81.9
REGION									
New England	26	9.4	9.1	21	8.7	9.2	5	14.3	5.3
Middle Atlantic	34	12.3	10.4	28	11.6	10.4	6	17.1	9.6
South Atlantic	45	16.2	11.6	38	15.7	10.3	7	20.0	38.3
Midwest	84	30.3	21.9	75	31.0	22.0	9	25.7	18.6
South Central	35	12.6	6.9	30	12.4	6.1	5	14.3	24.3
Mountain	18	6.5	4.6	17	7.0	4.7	1	2.9	2.3
Pacific	35	12.6	35.6	33	13.6	37.2	2	5.7	1.6
SIZE									
0–19,999	87	31.4	4.5	63	26.0	3.5	24	68.6	24.3
20,000–49,999	71	25.6	9.3	65	26.9	8.8	6	17.1	20.6
50,000–99,999	59	21.3	17.6	55	22.7	17.2	4	11.4	27.0
100,000+	60	21.7	68.6	59	24.4	70.5	1	2.9	28.1
AGE									
1–3	35	12.6	4.4	–	–	–	35	100.0	100.0
4–7	130	46.9	20.8	130	53.7	21.8	–	–	–
8–15	76	27.4	32.9	76	31.4	34.4	–	–	–
16+	36	13.0	41.9	36	14.9	43.8	–	–	–
TAX STATUS									
Nonprofit	112	40.4	62.6	104	43.0	65.0	8	22.9	8.6
For-profit	165	59.6	37.4	138	57.0	35.0	27	77.1	91.4
QUALIFICATION STATUS									
Federally Qualified	179	64.6	81.9	167	69.0	82.7	12	34.3	66.3
Non-qualified	98	35.4	18.1	75	31.0	17.3	23	65.7	33.7
OWNERSHIP									
Blue Cross/Blue Shield	39	14.1	8.6	37	15.3	8.7	2	5.7	6.6
Commercial Insurer	38	13.7	6.1	30	12.4	6.0	8	22.9	10.0
National HMO Company	40	14.4	39.3	38	15.7	40.7	2	5.7	8.3
Independent	87	31.4	30.9	77	31.8	31.5	10	28.6	19.0
Provider-sponsored	73	26.4	15.0	60	24.8	13.1	13	37.1	56.0
MULTISTATE ORGANIZATION									
Yes	90	32.5	50.5	76	31.4	50.3	14	40.0	54.9
No	187	67.5	49.5	166	68.6	49.7	21	60.0	45.1

Table 1 *(continued)* Selected Characteristics of Responding HMOs Used in the Financial Analysis with More Than 1,000 Enrollees, by Plan Age, 1989[1]

	Profitable Plans >3 Years			Unprofitable Plans >3 Years		
	# of Plans	% of Plans	% of Enrollees	# of Plans	% of Plans	% of Enrollees
PLANS >3 YEARS	159	100.0	100.0	83	100.0	100.0
MODEL						
Staff	26	16.4	12.0	7	8.4	19.4
Group	23	14.5	38.7	12	14.5	35.2
Network	21	13.2	16.0	9	10.8	5.9
IPA	89	56.0	33.4	55	66.3	39.5
REGION						
New England	12	7.5	9.0	9	10.8	10.0
Middle Atlantic	15	9.4	10.1	13	15.7	11.7
South Atlantic	25	15.7	7.4	13	15.7	21.5
Midwest	57	35.8	22.4	18	21.7	20.9
South Central	16	10.1	5.6	14	16.9	8.0
Mountain	12	7.5	5.6	5	6.0	1.2
Pacific	22	13.8	39.9	11	13.3	26.8
SIZE						
0–19,999	27	17.0	2.0	36	43.4	9.5
20,000–49,999	47	29.6	8.1	18	21.7	11.2
50,000–99,999	40	25.2	15.7	15	18.1	22.9
100,000+	45	28.3	74.2	14	16.9	56.4
AGE						
4–7	73	45.9	16.7	57	68.7	41.3
8–15	61	38.4	39.5	15	18.1	14.7
16+	25	15.7	43.8	11	13.3	44.0
TAX STATUS						
Nonprofit	75	47.2	67.8	29	34.9	54.5
For-profit	84	52.8	32.2	54	65.1	45.5
QUALIFICATION STATUS						
Federally Qualified	112	70.4	82.1	55	66.3	84.9
Non-qualified	47	29.6	17.9	28	33.7	15.1
OWNERSHIP						
Blue Cross/Blue Shield	21	13.2	6.8	16	19.3	16.2
Commercial Insurer	13	8.2	3.5	17	20.5	15.2
National HMO Company	21	13.2	40.9	17	20.5	39.9
Independent	62	39.0	35.3	15	18.1	16.8
Provider-sponsored	42	26.4	13.5	18	21.7	11.8
MULTISTATE ORGANIZATION						
Yes	40	25.2	48.5	36	43.4	57.3
No	119	74.8	51.5	47	56.6	42.7

Note:

1. Model, region, tax status, qualification status, ownership and multistate organization characteristics of responding plans are as of March 31, 1990. Plan size and age are as of December 31, 1989.

Source: GHAA's Annual HMO Industry Survey.

Table 2 Percentage of Profitable and Unprofitable Plans by Selected Plan Characteristics, 1989[1]

	Operating Profit (n = 260)		Gross Profit (n = 277)		Net Profit (n = 277)	
	Profit	Loss	Profit	Loss	Profit	Loss
ALL PLANS	55.4%	44.6%	63.2%	36.8%	63.5%	36.5%
MODEL						
Staff	73.5	26.5	77.1	22.9	77.1	22.9
Group	57.6	42.4	66.7	33.3	66.7	33.3
Network	60.6	39.4	68.6	31.4	68.6	31.4
IPA	50.0	50.0	58.5	41.5	59.1	40.9
REGION						
New England	72.2	27.8	57.7	42.3	57.7	42.3
Middle Atlantic	46.9	53.1	50.0	50.0	50.0	50.0
South Atlantic	51.1	48.9	60.0	40.0	60.0	40.0
Midwest	56.4	43.6	73.8	26.2	73.8	26.2
South Central	44.1	55.9	54.3	45.7	57.1	42.9
Mountain	50.0	50.0	66.7	33.3	66.7	33.3
Pacific	71.4	26.8	65.7	34.3	65.7	34.3
SIZE						
0–19,999	34.1	65.9	41.2	58.8	42.4	57.6
20,000–49,999	62.0	38.0	69.9	30.1	69.9	30.1
50,000–99,999	63.6	36.4	72.4	27.6	72.4	27.6
100,000 +	71.2	28.8	77.0	23.0	77.0	23.0
AGE						
1–3	39.4	60.6	45.7	54.3	45.7	54.3
4–7	48.0	52.0	56.2	43.8	56.9	43.1
8–15	71.6	28.4	80.3	19.7	80.3	19.7
16 +	65.7	34.3	69.4	30.6	69.4	30.6
TAX STATUS						
Nonprofit	61.8	38.2	70.5	29.5	70.5	29.5
For-profit	51.3	48.7	58.2	41.8	58.8	41.2
QUALIFICATION STATUS						
Federally Qualified	59.5	40.5	67.0	33.0	67.0	33.0
Non-qualified	36.4	63.6	56.1	43.9	57.1	42.9
OWNERSHIP						
Blue Cross/Blue Shield	50.0	50.0	53.8	46.2	56.4	43.6
Other Insurer	33.3	66.7	39.5	60.5	39.5	60.5
National HMO Chain	48.6	51.4	55.0	45.0	55.0	45.0
Independent	68.8	31.2	77.0	23.0	77.0	23.0
Provider-sponsored	58.3	41.7	68.5	31.5	68.5	31.5
MULTISTATE ORGANIZATION						
Yes	49.4	48.4	51.1	48.9	51.1	48.9
No	58.3	41.7	69.0	31.0	69.5	30.5

Table 2 *(continued)* Percentage of Profitable and Unprofitable Plans by Selected Plan Characteristics, 1989[1]

	Operating Profit (n = 227)		Gross Profit (n = 242)		Net Profit (n = 242)	
	Profit	Loss	Profit	Loss	Profit	Loss
ALL PLANS > 3 YEARS	57.7%	42.3%	65.7%	34.3%	66.1%	33.9%
MODEL						
Staff	75.0	25.0	78.8	21.2	78.8	21.2
Group	59.4	40.6	65.7	34.3	65.7	34.3
Network	62.1	37.9	70.0	30.0	70.0	30.0
IPA	52.2	47.8	61.8	38.2	62.5	37.5
REGION						
New England	66.7	33.3	57.1	42.9	57.1	42.9
Middle Atlantic	50.0	50.0	53.6	46.4	53.6	46.4
South Atlantic	55.3	44.7	65.8	34.2	65.8	34.2
Midwest	59.4	40.6	76.0	24.0	76.0	24.0
South Central	44.8	55.2	53.3	46.7	56.7	43.3
Mountain	52.9	47.1	70.6	29.4	70.6	29.4
Pacific	72.7	27.3	66.7	33.3	66.7	33.3
SIZE						
0–19,999	31.1	68.9	41.9	58.1	43.5	56.5
20,000–49,999	65.6	34.4	72.7	27.3	72.7	27.3
50,000–99,999	66.7	33.3	72.2	27.8	72.2	27.8
100,000+	70.6	29.4	76.7	23.3	76.7	23.3
AGE						
4–7	48.0	52.0	56.2	43.8	56.9	43.1
8–15	71.6	28.4	80.3	19.7	80.3	19.7
16+	65.7	34.3	69.4	30.6	69.4	30.6
TAX STATUS						
Nonprofit	62.1	37.9	72.1	27.9	72.1	27.9
For-profit	54.5	45.5	60.9	39.1	61.6	38.4
QUALIFICATION STATUS						
Federally Qualified	60.3	39.7	67.1	32.9	67.1	32.9
Non-qualified	52.1	47.9	62.7	37.3	64.0	36.0
OWNERSHIP						
Blue Cross/Blue Shield	52.8	47.2	56.8	43.2	59.5	40.5
Commericial Insurer	34.5	65.5	43.3	56.7	43.3	56.7
National HMO Company	48.6	51.4	55.3	44.7	55.3	44.7
Independent	72.1	27.9	80.5	19.5	80.5	19.5
Provider-sponsored	61.0	39.0	70.0	30.0	70.0	30.0
MULTISTATE ORGANIZATION						
Yes	50.0	50.0	52.6	47.4	52.6	47.4
No	61.3	38.7	71.7	28.3	72.3	27.7

Note:

1. Excludes plans with 1,000 enrollees or fewer.

Source: GHAA's Annual HMO Industry Survey

Table 3 Profit Performance by Selected Plan Characteristics, 1989[1]

	Operating Profit per Member per Month				Gross Profit per Member per Month				Net Profit per Member per Month			
	Mean	25th Percentile	50th Percentile	75th Percentile	Mean	25th Percentile	50th Percentile	75th Percentile	Mean	25th Percentile	50th Percentile	75th Percentile
ALL PLANS (n = 244)	$ - .17	$ -3.30	$ .94	$ 3.54	$ - .23	$ -2.71	$ .99	$ 3.11	$ - .23	$ -2.71	$ .94	$ 2.85
MODEL												
Staff	2.01	-1.49	2.15	5.94	.86	- .11	1.87	3.32	.87	- .11	1.87	3.32
Group	1.17	- .95	1.55	4.47	- .82	- .71	.41	2.25	- .92	- .71	.41	1.81
Network	.55	-1.44	1.68	3.56	1.68	- .18	1.91	3.96	1.37	- .18	1.70	3.35
IPA	-1.02	-4.41	- .01	2.63	- .70	-4.45	.63	3.10	- .63	-3.62	.63	2.85
REGION												
New England	1.54	- .40	2.45	4.26	.19	-1.87	1.20	3.46	.09	-1.87	1.20	2.95
Middle Atlantic	- .45	-5.05	- .35	3.31	-1.52	-6.46	- .76	1.89	-1.15	-6.25	- .76	1.89
South Atlantic	.39	-4.38	.58	5.18	- .09	-3.54	1.27	5.92	- .25	-3.20	1.45	3.86
Midwest	- .04	-2.04	.49	2.42	.63	-1.41	1.02	3.16	.42	-1.41	.89	2.89
South Central	-1.47	-5.70	- .08	3.68	-1.03	-5.51	.56	3.91	-1.12	-4.37	.54	3.38
Mountain	- .01	-1.82	.71	3.63	- .10	-2.79	1.44	3.44	- .04	-1.85	1.19	2.53
Pacific	- .71	-2.40	1.78	3.52	- .68	-1.93	1.69	3.20	- .25	-1.66	1.12	2.79
SIZE												
0–19,999	-3.42	-7.78	-1.82	1.09	-3.06	-8.26	-1.22	1.39	-2.64	-7.47	-1.14	1.39
20,000–49,999	1.11	-1.60	1.20	4.76	1.02	- .90	1.59	3.29	.87	-1.49	1.42	3.28
50,000–99,999	1.22	-1.13	1.79	3.67	.94	-1.41	2.01	3.20	.90	-1.05	1.80	2.82
100,000 +	1.56	- .08	2.04	4.15	1.14	.01	1.71	3.96	.73	.01	1.69	3.35
AGE												
1–3	-2.56	-6.84	-2.66	3.83	-3.03	-10.32	-2.23	4.75	-2.65	-9.00	-1.68	3.54
4–7	-1.04	-4.10	- .08	2.35	- .70	-3.25	.37	2.69	- .68	-3.02	.41	2.55
8–15	1.46	- .54	2.18	4.19	1.37	.20	1.94	3.45	1.13	.16	1.70	3.13
16 +	1.95	- .38	2.13	4.85	.91	- .65	1.57	3.46	.93	- .60	1.39	3.38
TAX STATUS												
Nonprofit	.34	-1.79	1.20	3.52	.34	-1.41	1.12	2.69	.33	-1.41	1.12	2.75
For-profit	- .49	-4.10	.12	3.56	- .58	-3.67	.58	3.91	- .58	-3.40	.59	3.28
QUALIFICATION STATUS												
Federally Qualified	.76	-1.60	1.54	4.26	.58	-1.52	1.58	3.38	.56	-1.41	1.21	2.92
Non-qualified	-1.87	-4.84	- .18	1.83	-1.71	-5.17	.52	2.42	-1.68	-5.17	.51	2.41
OWNERSHIP												
Blue Cross/Blue Shield	- .09	-4.29	.35	4.02	- .38	-3.81	.26	2.70	- .41	-3.67	.33	2.87
Commercial Insurer	-3.61	-11.49	-1.21	1.11	-4.36	-9.81	-1.59	2.01	-3.14	-6.80	-1.28	1.32
National HMO Company	.40	-1.71	1.07	4.39	- .28	-3.15	.60	4.31	- .59	-3.30	.87	2.98
Independent	1.10	- .75	1.98	4.25	1.40	.18	1.85	3.44	1.19	.13	1.71	3.08
Provider-sponsored	- .09	-2.53	.29	3.11	.22	-2.54	1.42	3.38	- .01	-2.54	1.13	3.38
MULTISTATE ORGANIZATION												
Yes	- .93	-4.37	.29	3.94	-1.86	-5.75	.20	2.94	-1.50	-4.37	.17	2.58
No	.18	-2.53	1.03	3.41	.53	-1.47	1.39	3.29	.36	-1.73	1.14	2.92

Table 3 *(continued)* Profit Performance by Selected Plan Characteristics, 1989[1]

	Operating Profit per Member per Month				Gross Profit per Member per Month				Net Profit per Member per Month			
	Mean	25th Percentile	50th Percentile	75th Percentile	Mean	25th Percentile	50th Percentile	75th Percentile	Mean	25th Percentile	50th Percentile	75th Percentile
PLANS >3 YEARS (n = 214)	$ .17	$ -2.04	$ 1.12	$ 3.52	$ .17	$ -1.73	$ 1.15	$ 3.05	.11	-1.73	1.12	2.82
MODEL												
Staff	2.07	.06	2.15	4.76	.91	.30	1.87	2.89	.92	.22	1.87	2.89
Group	1.21	-.95	2.02	4.47	-.85	-.71	.48	2.25	-.95	-.71	.48	1.81
Network	.92	-1.05	1.83	3.56	1.93	-.18	2.07	3.96	1.65	-.18	1.70	3.35
IPA	-.67	-4.02	.10	2.63	-.13	-2.71	.87	3.10	-.15	-2.59	.82	2.85
REGION												
New England	1.19	-1.13	2.38	4.26	-.74	-2.42	-.32	2.76	-.84	-2.42	-.32	2.76
Middle Atlantic	-.07	-4.10	.53	3.31	-1.11	-3.67	-.26	1.89	-.86	-3.67	-.29	1.89
South Atlantic	.96	-3.08	1.03	4.85	.46	-1.58	1.41	5.90	.25	-1.22	1.49	4.14
Midwest	.53	-1.44	.99	2.61	1.33	-.18	1.62	3.38	1.11	-.18	1.49	3.32
South Central	-1.51	-5.70	.10	3.20	-1.02	-4.37	.43	3.38	-1.14	-4.37	.54	2.87
Mountain	.30	-1.60	1.50	3.63	.23	-1.14	1.65	3.44	.29	-1.14	1.24	2.53
Pacific	.51	-1.19	1.78	3.33	-.18	-.65	1.69	3.04	.04	-.60	1.12	2.40
SIZE												
0–19,999	-3.48	-7.01	-1.53	.46	-2.67	-5.80	-1.14	1.24	-2.35	-5.36	-1.07	.99
20,000–49,999	1.71	-.44	1.87	4.84	1.51	-.53	1.77	3.38	1.35	-.41	1.61	3.30
50,000–99,999	1.27	-.95	1.83	3.67	.98	-1.41	2.01	3.20	.90	-1.05	1.80	2.82
100,000+	1.45	-.23	1.84	4.13	1.04	-.02	1.70	3.93	.68	-.02	1.61	3.15
AGE												
4–7	-1.04	-4.10	-.08	2.35	-.70	-3.25	.37	2.69	-.68	-3.02	.41	2.55
8–15	1.46	-.54	2.18	4.19	1.37	.20	1.94	3.45	1.13	.16	1.70	3.13
16+	1.95	-.38	2.13	4.85	.91	-.65	1.57	3.46	.93	-.60	1.39	3.38
TAX STATUS												
Nonprofit	.42	-1.63	1.33	3.52	.44	-1.14	1.18	2.69	.44	-1.14	1.18	2.75
For-profit	-.02	-2.65	.92	3.49	-.03	-2.52	.86	3.74	-.13	-2.25	.73	3.12
QUALIFICATION STATUS												
Federally Qualified	.83	-1.15	1.60	4.06	.59	-1.47	1.40	3.29	.57	-1.30	1.21	2.87
Non-qualified	-1.26	-4.02	.07	2.19	-.73	-3.13	.87	2.68	-.88	-3.19	.82	2.68
OWNERSHIP												
Blue Cross/Blue Shield	.31	-3.77	1.01	4.38	.03	-3.02	.39	2.82	.00	-3.02	.52	2.92
Commercial Insurer	-2.89	-7.08	-.46	2.56	-3.19	-8.26	-1.52	2.76	-2.18	-5.36	-1.05	1.81
National HMO Company	.21	-1.79	1.01	4.27	-.45	-3.46	.57	3.91	-.77	-3.46	.63	2.58
Independent	1.31	-.08	2.13	4.24	1.63	.20	1.87	3.32	1.39	.17	1.71	2.95
Provider-sponsored	.20	-1.40	.92	2.69	.51	-1.22	1.49	3.29	.28	-1.73	1.41	2.79
MULTISTATE ORGANIZATION												
Yes	-.50	-3.08	.90	3.63	-1.23	-4.37	.43	2.91	-1.02	-3.46	.54	2.25
No	.47	-1.67	1.33	3.47	.79	-.91	1.53	3.30	.61	-1.03	1.40	2.93

Note:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.

Source: GHAA's Annual HMO Industry Survey.

Table 4 Mean Selected Revenues per Member per Month and as a Percent of Total Revenue, by Selected Plan Characteristics, 1989[1,2,3]

	Revenue Sources per Member per Month						Sources as Percent of Total Revenue				
	Total Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue
ALL PLANS (n = 248)	$88.08	$76.77	$ 7.14	$ .94	$ .68	$2.56	87.9%	7.4%	1.0%	.8%	2.9%
(75th percentile)	*95.52*	*85.32*	*7.07*	*.41*	*1.00*	*3.12*					
(Median)	*85.83*	*76.42*	*.00*	*.00*	*.06*	*1.77*					
(25th percentile)	*77.71*	*69.80*	*.00*	*.00*	*.00*	*1.08*					
MODEL											
Staff	97.48	75.98	14.61	2.87	.76	3.26	78.1	14.7	3.1	.8	3.3
Group	85.47	73.55	7.79	1.92	.65	1.57	87.2	8.2	2.1	.7	1.8
Network	87.87	76.31	8.51	.52	.48	2.05	89.0	7.6	.6	.5	2.3
IPA	86.79	77.67	5.26	.44	.71	2.71	89.8	5.8	.5	.8	3.1
REGION											
New England	102.35	91.74	5.87	1.69	.65	2.41	90.3	5.1	1.6	.6	2.4
Middle Atlantic	82.77	75.55	4.18	.76	.53	1.75	91.9	4.5	.9	.6	2.1
South Atlantic	89.48	79.76	4.63	1.17	.79	3.13	90.1	4.4	1.2	.9	3.4
Midwest	84.57	68.45	12.34	.61	.56	2.61	82.0	13.7	.7	.6	3.0
South Central	88.38	83.29	.70	.81	1.07	2.52	94.3	.8	.9	1.2	2.8
Mountain	82.10	72.54	5.12	.39	.76	3.29	89.3	5.1	.4	1.0	4.2
Pacific	92.23	79.03	8.68	1.52	.65	2.36	87.1	8.0	1.6	.7	2.5
SIZE											
0–19,999	85.36	74.97	5.67	.65	.75	3.32	88.5	6.0	.7	.9	3.9
20,000–49,999	84.75	76.61	4.36	.95	.71	2.12	90.6	5.0	1.1	.8	2.5
50,000–99,999	89.38	76.62	9.05	.82	.67	2.23	86.6	9.3	.8	.8	2.4
100,000 +	94.84	79.70	10.77	1.48	.56	2.32	85.0	10.5	1.5	.6	2.4
AGE											
1–3	87.14	78.88	4.19	.54	.52	3.00	90.9	4.4	.7	.6	3.5
4–7	84.35	75.78	4.88	.43	.69	2.57	90.0	5.7	.5	.8	3.0
8–15	90.92	78.53	8.30	1.02	.77	2.29	87.5	7.9	1.1	.9	2.6
16 +	96.13	74.33	15.57	2.98	.60	2.65	78.4	15.3	3.1	.6	2.6
TAX STATUS											
Nonprofit	90.57	74.60	11.42	1.45	.63	2.47	83.1	11.9	1.6	.7	2.7
For-profit	86.32	78.31	4.09	.58	.72	2.62	91.4	4.2	.6	.8	3.0
QUALIFICATION STATUS											
Federally Qualified	90.26	78.82	7.17	1.15	.70	2.43	88.2	7.1	1.2	.8	2.7
Non-qualified	84.13	73.04	7.08	.57	.66	2.78	87.4	7.9	.7	.8	3.2
OWNERSHIP											
Blue Cross/Blue Shield	89.12	79.30	5.25	.79	.70	3.07	90.2	4.8	.8	.8	3.5
Commercial Insurer	89.51	82.65	.18	1.66	1.14	3.89	92.6	.2	1.7	1.2	4.3
National HMO Company	88.45	73.85	10.95	1.41	.39	1.84	85.3	10.7	1.5	.4	2.1
Independent	90.79	76.37	10.24	1.10	.68	2.41	85.0	10.4	1.2	.8	2.6
Provider-sponsored	83.47	74.46	6.01	.23	.61	2.16	89.2	7.2	.3	.7	2.6
MULTISTATE ORGANIZATION											
Yes	88.59	77.96	5.57	1.64	.74	2.67	89.0	5.5	1.7	.8	2.9
No	87.84	76.20	7.88	.61	.65	2.50	87.4	8.3	.7	.8	2.8

Table 4 *(continued)* Mean Selected Revenues per Member per Month and as a Percent of Total Revenue, by Selected Plan Characteristics, 1989[1,2,3]

	Revenue Sources per Member per Month						Sources as Percent of Total Revenue				
	Total Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue
ALL PLANS > 3 YEARS (n=216)	$88.22	$76.46	$ 7.57	$1.00	$ .71	$2.49	87.5%	7.9%	1.1%	.8%	2.8%
(75th percentile)	*95.57*	*84.68*	*8.34*	*.49*	*1.11*	*2.98*					
(Median)	*86.00*	*76.43*	*.00*	*.00*	*.08*	*1.66*					
(25th percentile)	*78.22*	*69.76*	*.00*	*.00*	*.00*	*1.08*					
MODEL											
Staff	97.55	74.64	15.57	3.05	.82	3.48	76.7	15.7	3.3	.9	3.5
Group	85.44	73.46	7.99	1.99	.68	1.33	87.[illegible]	8.4	2.2	.7	1.5
Network	88.04	76.59	8.72	.39	.55	1.78	89.6	7.4	.4	.6	1.9
IPA	86.85	77.54	5.48	.43	.72	2.68	89.6	6.1	.4	.8	3.1
REGION											
New England	103.66	91.88	6.99	1.94	.53	2.33	89.3	6.1	1.8	.5	2.3
Middle Atlantic	82.49	74.22	5.10	.74	.64	1.79	90.8	5.5	.8	.8	2.1
South Atlantic	89.53	80.06	4.67	1.20	.82	2.79	90.3	4.5	1.2	.9	3.0
Midwest	84.62	68.54	12.35	.62	.58	2.54	82.0	13.7	.8	.7	2.9
South Central	89.87	84.49	.84	.93	1.14	2.47	94.1	1.0	1.0	1.3	2.7
Mountain	81.45	71.46	5.46	.42	.76	3.35	88.9	5.4	.4	1.0	4.3
Pacific	91.59	77.65	9.25	1.63	.67	2.39	86.4	8.6	1.7	.7	2.6
SIZE											
0–19,999	83.59	73.15	5.55	.59	.78	3.52	88.3	6.0	.7	.9	4.1
20,000–49,999	85.05	76.43	4.76	1.05	.78	2.03	90.1	5.4	1.2	.9	2.4
50,000–99,999	90.09	76.69	9.76	.88	.69	2.06	86.0	10.1	.9	.8	2.2
100,000+	94.84	79.70	10.77	1.48	.56	2.32	85.0	10.5	1.5	.6	2.4
AGE											
4–7	84.35	75.78	4.88	.43	.69	2.57	90.0	5.7	.5	.8	3.0
8–15	90.92	78.53	8.30	1.02	.77	2.29	87.5	7.9	1.1	.9	2.6
16+	96.13	74.33	15.57	2.98	.60	2.65	78.4	15.3	3.1	.6	2.6
TAX STATUS											
Nonprofit	90.57	74.98	10.95	1.50	.67	2.47	83.5	11.5	1.6	.7	2.7
For-profit	86.34	77.63	4.87	.60	.74	2.51	90.7	5.0	.6	.8	2.9
QUALIFICATION STATUS											
Federally Qualified	90.79	78.79	7.64	1.22	.69	2.45	87.7	7.6	1.3	.8	2.7
Non-qualified	82.52	71.25	7.42	.52	.74	2.58	86.9	8.5	.6	.9	3.0
OWNERSHIP											
Blue Cross/Blue Shield	90.28	79.98	5.55	.84	.74	3.17	89.7	5.1	.8	.8	3.5
Commercial Insurer	92.33	84.85	.23	1.98	1.29	3.98	92.2	.3	2.0	1.4	4.2
National HMO Company	87.61	73.05	10.95	1.49	.37	1.74	85.2	10.8	1.6	.4	2.0
Independent	90.59	76.31	9.92	1.14	.75	2.47	85.2	10.0	1.3	.9	2.7
Provider-sponsored	82.40	72.62	7.19	.16	.56	1.86	88.3	8.6	.2	.7	2.3
MULTISTATE ORGANIZATION											
Yes	89.20	78.08	6.00	1.78	.74	2.60	88.6	5.9	1.9	.8	2.8
No	87.78	75.72	8.28	.65	.69	2.44	87.0	8.7	.7	.8	2.8

Table 4 *(continued)* Mean Selected Revenues per Member per Month and as a Percent of Total Revenue, by Selected Plan Characteristics, 1989[1,2,3]

	Revenue Sources per Member per Month						Sources as Percent of Total Revenue				
	Total Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue
PROFITABLE PLANS > 3 YEARS[4] (n = 139)	$88.77	$76.79	$ 8.15	$ .73	$ .62	$2.47	87.3%	8.5%	.8%	.7%	2.8%
MODEL											
Staff	93.29	72.22	14.58	2.62	.75	3.11	77.3	15.7	2.9	.8	3.2
Group	84.98	73.24	7.91	1.33	.89	1.60	87.4	8.2	1.5	1.0	1.9
Network	91.86	77.69	11.38	.20	.58	2.01	87.5	9.6	.2	.7	2.0
IPA	87.66	78.77	5.60	.16	.53	2.60	90.1	6.2	.2	.6	3.0
REGION											
New England	103.33	92.01	7.55	.83	.46	2.48	89.8	6.7	.8	.5	2.3
Middle Atlantic	83.82	73.67	6.03	1.40	.82	1.90	88.2	7.0	1.5	1.0	2.3
South Atlantic	89.96	80.00	5.96	.43	.67	2.90	90.0	5.6	.4	.8	3.2
Midwest	85.78	70.25	11.68	.71	.58	2.56	82.9	12.7	.9	.7	2.9
South Central	89.96	85.62	1.14	.25	.75	2.21	95.1	1.3	.3	.8	2.5
Mountain	84.46	72.14	8.19	.63	.54	2.97	86.9	8.1	.6	.7	3.7
Pacific	91.52	79.76	8.06	.97	.60	2.14	88.3	7.7	1.0	.6	2.3
SIZE											
0–19,999	81.49	70.23	5.88	.69	.51	4.17	86.7	7.0	.8	.6	4.9
20,000–49,999	85.12	76.16	5.61	.72	.72	1.92	89.6	6.4	.9	.9	2.3
50,000–99,999	90.22	75.80	10.39	.81	.77	2.45	84.8	10.8	.9	.9	2.6
100,000+	95.00	81.64	10.00	.70	.47	2.19	87.2	9.3	.7	.5	2.3
AGE											
4–7	84.77	76.12	5.13	.30	.52	2.70	89.9	6.0	.3	.6	3.1
8–15	91.10	79.00	7.97	.96	.84	2.34	87.5	7.9	1.1	1.0	2.6
16+	94.20	73.15	17.11	1.39	.37	2.19	79.1	16.8	1.6	.4	2.2
TAX STATUS											
Nonprofit	90.18	74.51	11.13	1.22	.71	2.61	83.0	11.9	1.4	.8	2.8
For-profit	87.41	78.98	5.29	.27	.54	2.34	91.3	5.1	.3	.6	2.7
QUALIFICATION STATUS											
Federally Qualified	90.51	78.39	8.40	.72	.61	2.40	87.5	8.5	.8	.7	2.6
Non-qualified	84.59	72.97	7.54	.76	.66	2.66	86.8	8.5	.9	.8	3.0
OWNERSHIP											
Blue Cross/Blue Shield	89.86	78.95	5.59	1.01	.69	3.62	88.8	5.4	1.1	.8	4.0
Commercial Insurer	90.61	85.65	.35	.05	1.15	3.41	94.6	.4	.1	1.3	3.6
National HMO Company	90.08	73.78	12.69	.76	.46	2.39	84.4	11.6	.8	.5	2.7
Independent	90.41	76.34	10.06	1.12	.64	2.25	85.2	10.4	1.3	.7	2.4
Provider-sponsored	84.50	75.64	6.20	.14	.52	2.00	89.3	7.5	.2	.6	2.4
MULTISTATE ORGANIZATION											
Yes	88.43	76.33	8.26	.80	.57	2.47	87.9	7.8	.8	.6	2.8
No	88.88	76.94	8.11	.71	.64	2.48	87.0	8.7	.8	.7	2.7

Table 4 *(continued)* Mean Selected Revenues per Member per Month and as a Percent of Total Revenue, by Selected Plan Characteristics, 1989[1,2,3]

	Revenue Sources per Member per Month						Sources as Percent of Total Revenue				
	Total Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue	Premiums	Medicare & Medicaid	Fee-For-Service & Copays	COB & Subrogation	Other Revenue
UNPROFITABLE PLANS > 3 YEARS (n = 77)	$87.24	$75.85	$ 6.53	$1.49	$ .86	$2.52	87.9%	6.8%	1.5%	1.0%	2.9%
MODEL											
Staff	113.89	83.93	19.36	4.66	1.06	4.88	74.5	15.4	4.5	1.0	4.7
Group	86.18	73.81	8.12	3.02	.33	.89	86.7	8.7	3.3	.3	1.0
Network	78.19	73.75	1.88	.89	.48	1.20	94.9	2.0	.9	.6	1.6
IPA	85.63	75.68	5.30	.85	1.01	2.80	88.8	6.0	.9	1.1	3.2
REGION											
New England	104.09	91.70	6.23	3.41	.62	2.13	88.6	5.4	3.2	.6	2.2
Middle Atlantic	81.06	74.82	4.09	.03	.46	1.67	93.5	3.9	.0	.6	2.0
South Atlantic	88.81	80.15	2.51	2.48	1.06	2.61	91.0	2.6	2.6	1.1	2.8
Midwest	81.16	63.42	14.37	.34	.57	2.46	79.4	16.6	.4	.6	2.9
South Central	89.76	83.06	.45	1.79	1.64	2.81	92.8	.5	1.9	1.8	2.9
Mountain	75.44	70.12	.00	.00	1.21	4.11	92.8	.0	.0	1.6	5.6
Pacific	91.71	73.85	11.39	2.81	.80	2.86	83.0	10.1	2.9	.9	3.1
SIZE											
0–19,999	84.90	74.95	5.35	.52	.94	3.12	89.3	5.4	.6	1.1	3.7
20,000–49,999	84.87	77.09	2.66	1.88	.95	2.30	91.5	3.0	1.9	1.0	2.6
50,000–99,999	89.77	78.91	8.17	1.07	.50	1.11	89.0	8.2	1.0	.6	1.2
100,000+	94.30	73.09	13.43	4.12	.89	2.77	77.7	14.3	4.3	.9	2.8
AGE											
4–7	83.85	75.37	4.57	.60	.90	2.41	90.2	5.3	.7	1.0	2.8
8–15	90.25	76.80	9.54	1.23	.54	2.14	87.3	8.2	1.3	.6	2.6
16+	100.37	76.93	12.19	6.47	1.11	3.67	77.0	12.0	6.4	1.1	3.6
TAX STATUS											
Nonprofit	91.53	76.14	10.52	2.19	.57	2.11	84.4	10.4	2.2	.6	2.4
For-profit	84.79	75.69	4.25	1.08	1.02	2.75	89.9	4.7	1.1	1.2	3.1
QUALIFICATION STATUS											
Federally Qualified	91.32	79.58	6.17	2.17	.85	2.56	88.3	5.9	2.2	.9	2.8
Non-qualified	79.25	68.55	7.23	.15	.87	2.45	87.2	8.5	.2	1.0	3.0
OWNERSHIP											
Blue Cross/Blue Shield	90.83	81.34	5.49	.61	.82	2.57	91.0	4.7	.5	.8	3.0
Commercial Insurer	93.30	84.41	.17	3.07	1.37	4.30	90.8	.2	3.1	1.4	4.5
National HMO Company	84.47	72.12	8.75	2.41	.27	.92	86.1	9.9	2.6	.3	1.1
Independent	91.39	76.17	9.32	1.24	1.25	3.41	85.2	8.1	1.3	1.5	3.9
Provider-sponsored	78.18	66.56	9.17	.22	.64	1.59	86.2	10.7	.3	.8	1.9
MULTISTATE ORGANIZATION											
Yes	90.05	80.00	3.53	2.86	.93	2.73	89.4	3.8	3.0	1.0	2.9
No	85.25	72.91	8.66	.51	.81	2.37	86.9	8.9	.5	.9	2.8

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows many not add because of rounding.
3. Some respondents may have aggregated revenue sources into "other" or "premiums."
4. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

Source: GHAA's Annual HMO Industry Survey.

Table 5 Mean Summary Expenses Per Member Per Month and as a Percent of Total Expenses, by Selected Plan Characteristics, 1989[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Expenses		
	Total	Hospital	Medical	Administrative	Hospital	Medical	Administrative
ALL PLANS (n = 243)	$88.74	$28.84	$48.22	$11.69	32.7%	54.2%	13.1%
(75th percentile)	*97.71*	*33.32*	*54.50*	*14.46*			
(Median)	*86.43*	*27.59*	*47.29*	*10.45*			
(25th percentile)	*78.09*	*23.21*	*40.60*	*8.10*			
MODEL							
Staff	94.22	26.06	56.87	11.30	27.8	60.2	12.0
Group	88.06	28.45	50.72	8.89	32.8	57.1	10.1
Network	89.38	31.01	46.19	12.18	34.5	52.2	13.3
IPA	87.59	29.01	46.33	12.25	33.3	52.7	13.9
REGION							
New England	105.75	36.01	56.56	13.19	34.1	53.6	12.3
Middle Atlantic	84.60	25.99	46.71	11.89	31.0	55.3	13.8
South Atlantic	89.93	29.48	47.65	12.81	33.5	52.4	14.1
Midwest	85.02	29.09	45.43	10.50	34.2	53.3	12.5
South Central	89.78	28.43	49.34	12.01	31.8	54.9	13.4
Mountain	81.09	24.27	45.44	11.38	30.2	55.9	13.8
Pacific	92.13	28.18	52.20	11.75	31.0	56.5	12.5
SIZE							
0–19,999	86.49	27.94	45.07	13.49	32.9	51.9	15.3
20,000–49,999	85.33	27.15	46.52	11.66	32.0	54.3	13.7
50,000–99,999	90.19	29.91	49.53	10.75	33.0	55.2	11.8
100,000+	94.69	31.11	53.43	10.16	33.2	56.1	10.7
AGE							
1–3	88.81	26.22	47.35	15.25	29.8	53.2	17.0
4–7	85.73	28.38	45.55	11.80	33.5	52.9	13.6
8–15	88.80	28.99	49.44	10.36	32.7	55.7	11.6
16+	98.97	32.47	55.77	10.73	32.7	56.6	10.7
TAX STATUS							
Nonprofit	90.59	30.05	49.89	10.65	33.3	55.0	11.7
For-profit	87.40	27.96	47.01	12.44	32.3	53.6	14.1
QUALIFICATION STATUS							
Federally Qualified	90.46	29.18	49.94	11.34	32.3	55.2	12.5
Non-qualified	85.61	28.22	45.07	12.32	33.5	52.3	14.2
OWNERSHIP							
Blue Cross/Blue Shield	90.39	30.76	47.85	11.79	33.8	52.9	13.3
Commercial Insurer	95.35	30.10	49.94	15.31	32.0	51.9	16.1
National HMO Company	89.36	29.37	49.83	10.15	32.9	55.6	11.5
Independent	90.15	28.58	49.90	11.67	31.8	55.5	12.6
Provider-sponsored	82.91	27.27	44.88	10.76	33.4	53.6	13.0
MULTISTATE ORGANIZATION							
Yes	91.24	29.49	49.58	12.17	32.5	54.2	13.3
No	87.63	28.54	47.61	11.48	32.8	54.2	13.0

Table 5 *(continued)* Mean Summary Expenses Per Member Per Month and as a Percent of Total Expenses, by Selected Plan Characteristics, 1989[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Expenses		
	Total	Hospital	Medical	Administrative	Hospital	Medical	Administrative
PLANS > 3 YEARS (n=213)	$88.73	$29.20	$48.34	$11.19	33.1%	54.3%	12.6%
(75th percentile)	*97.71*	*33.35*	*54.36*	*13.64*			
(Median)	*86.22*	*27.64*	*47.58*	*10.24*			
(25th percentile)	*78.19*	*23.43*	*40.60*	*7.89*			
MODEL							
Staff	94.08	27.05	55.83	11.20	28.9	59.2	11.9
Group	88.11	28.65	50.51	8.96	33.0	56.8	10.2
Network	89.37	31.30	46.23	11.83	34.8	52.3	12.9
IPA	87.51	29.37	46.57	11.57	33.8	53.0	13.2
REGION							
New England	106.24	36.03	58.32	11.89	33.9	55.1	11.0
Middle Atlantic	85.00	26.25	48.50	10.25	31.1	57.1	11.8
South Atlantic	90.26	29.35	48.05	12.86	33.3	52.6	14.1
Midwest	84.52	29.65	44.83	10.04	35.0	53.0	12.1
South Central	91.34	29.50	50.13	11.70	32.4	54.8	12.8
Mountain	80.00	23.98	44.75	11.27	30.3	55.8	13.9
Pacific	91.90	29.10	51.10	11.70	32.1	55.5	12.5
SIZE							
0–19,999	84.60	28.05	44.27	12.27	33.7	52.1	14.2
20,000–49,999	85.33	27.40	46.46	11.47	32.3	54.3	13.4
50,000–99,999	90.99	30.59	49.66	10.75	33.5	54.8	11.7
100,000+	94.69	31.11	53.43	10.16	33.2	56.1	10.7
AGE							
4–7	85.73	28.38	45.55	11.80	33.5	52.9	13.6
8–15	88.80	28.99	49.44	10.36	32.7	55.7	11.6
16+	98.97	32.47	55.77	10.73	32.7	56.6	10.7
TAX STATUS							
Nonprofit	90.79	30.03	50.46	10.31	33.2	55.5	11.3
For-profit	87.08	28.54	46.64	11.90	33.1	53.4	13.6
QUALIFICATION STATUS							
Federally Qualified	91.02	29.69	50.21	11.11	32.7	55.2	12.1
Non-qualified	83.76	28.14	44.26	11.36	34.1	52.4	13.5
OWNERSHIP							
Blue Cross/Blue Shield	91.25	31.21	48.61	11.42	34.0	53.3	12.7
Commercial Insurer	97.74	30.47	52.14	15.14	31.7	52.9	15.4
National HMO Company	89.75	29.72	49.92	10.11	33.2	55.5	11.4
Independent	89.67	28.93	49.58	11.16	32.3	55.5	12.2
Provider-sponsored	81.38	27.45	44.00	9.93	34.2	53.5	12.4
MULTISTATE ORGANIZATION							
Yes	92.45	29.91	50.73	11.82	32.5	54.8	12.7
No	87.10	28.90	47.29	10.91	33.4	54.1	12.5

Table 5 (continued) Mean Summary Expenses Per Member Per Month and as a Percent of Total Expenses, by Selected Plan Characteristics, 1989[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Expenses		
	Total	Hospital	Medical	Administrative	Hospital	Medical	Administrative
PROFITABLE PLANS > 3 YEARS[3] (n = 137)	$86.57	$28.78	$47.13	$10.65	33.5%	54.2%	12.4%
MODEL							
Staff	91.34	25.65	54.51	11.19	28.4	59.3	12.2
Group	82.72	28.20	46.99	7.53	34.3	56.0	9.6
Network	92.18	32.72	47.48	11.98	35.5	52.0	12.5
IPA	84.45	28.78	44.81	10.86	34.3	52.7	13.0
REGION							
New England	101.98	32.75	58.25	10.98	32.0	57.3	10.7
Middle Atlantic	83.78	25.29	48.24	10.25	30.2	57.9	11.9
South Atlantic	85.71	29.95	44.07	11.69	36.1	50.3	13.6
Midwest	84.22	29.66	44.87	9.68	35.1	53.2	11.7
South Central	86.83	27.41	48.65	10.77	31.8	55.6	12.5
Mountain	80.10	23.58	45.13	11.39	29.5	56.3	14.2
Pacific	91.83	29.54	50.77	11.51	32.6	55.1	12.4
SIZE							
0 - 19,999	77.10	25.76	40.23	11.10	34.5	51.1	14.4
20,000 - 49,999	83.20	26.77	45.48	10.94	32.4	54.4	13.2
50,000 - 99,999	89.19	29.79	48.32	11.08	33.1	54.7	12.2
100,000 +	93.00	31.65	51.61	9.74	34.3	55.1	10.6
AGE							
4-7	81.95	27.32	43.52	11.11	34.0	52.4	13.6
8-15	87.76	28.89	48.99	9.88	32.8	55.9	11.3
16 +	96.32	32.48	52.68	11.16	33.6	55.0	11.4
TAX STATUS							
Nonprofit	89.37	29.10	49.71	10.56	32.7	55.4	11.9
For-profit	83.88	28.48	44.66	10.74	34.3	52.9	12.8
QUALIFICATION STATUS							
Federally Qualified	88.12	29.13	48.51	10.49	33.0	55.1	11.9
Non-qualified	82.79	27.94	43.78	11.06	34.7	51.8	13.5
OWNERSHIP							
Blue Cross/Blue Shield	86.76	29.45	46.24	11.07	34.0	53.0	13.0
Commercial Insurer	90.51	30.24	49.06	11.23	34.3	53.2	12.5
National HMO Company	86.68	30.98	47.15	8.54	35.4	54.2	10.4
Independent	90.00	28.57	49.81	11.62	31.7	55.6	12.7
Provider-sponsored	80.44	27.32	43.21	9.91	34.6	52.8	12.6
MULTISTATE ORGANIZATION							
Yes	86.49	29.66	47.43	9.41	34.2	54.6	11.2
No	86.59	28.50	47.04	11.05	33.2	54.0	12.7

Table 5 (continued) Mean Summary Expenses Per Member Per Month and as a Percent of Total Expenses, by Selected Plan Characteristics, 1989[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Expenses		
	Total	Hospital	Medical	Administrative	Hospital	Medical	Administrative
UNPROFITABLE PLANS > 3 YEARS (n = 76)	$92.64	$29.97	$50.52	$12.15	32.5%	54.6%	12.9%
MODEL							
Staff	104.56	32.43	60.88	11.26	30.7	58.7	10.5
Group	96.21	29.32	55.78	11.10	31.0	58.0	11.0
Network	80.94	27.06	42.51	11.38	32.6	53.0	14.3
IPA	92.00	30.23	49.16	12.61	33.0	53.5	13.5
REGION							
New England	111.03	39.72	58.40	12.91	36.0	52.6	11.5
Middle Atlantic	86.23	27.21	48.76	10.26	32.0	56.2	11.8
South Atlantic	98.31	28.29	55.11	14.91	28.6	56.6	14.8
Midwest	85.38	29.61	44.72	11.06	34.5	52.4	13.1
South Central	96.21	31.76	51.73	12.72	33.1	53.9	13.0
Mountain	79.73	25.08	43.71	10.94	32.4	54.5	13.1
Pacific	92.04	28.16	51.79	12.10	31.0	56.3	12.7
SIZE							
0–19,999	89.76	29.63	47.04	13.08	33.1	52.8	14.1
20,000–49,999	90.48	28.92	48.82	12.75	31.9	54.1	14.0
50,000–99,999	95.08	32.41	52.69	9.99	34.3	55.1	10.6
100,000+	100.34	29.31	59.48	11.55	29.4	59.5	11.1
AGE							
4–7	90.24	29.65	47.97	12.62	32.9	53.4	13.7
8–15	92.67	29.37	51.14	12.16	32.3	54.8	12.9
16+	105.06	32.45	62.88	9.73	30.7	60.3	9.0
TAX STATUS							
Nonprofit	94.20	32.26	52.23	9.71	34.4	55.6	10.0
For-profit	91.73	28.63	49.52	13.58	31.4	54.0	14.6
QUALIFICATION STATUS							
Federally Qualified	96.74	30.82	53.58	12.34	32.0	55.4	12.6
Non-qualified	85.19	28.42	44.96	11.81	33.3	53.2	13.5
OWNERSHIP							
Blue Cross/Blue Shield	97.33	33.60	51.83	11.90	34.0	53.6	12.4
Commercial Insurer	101.81	30.60	53.87	17.34	30.2	52.7	17.1
National HMO Company	93.44	28.21	53.24	11.99	30.5	56.9	12.6
Independent	88.32	30.42	48.63	9.27	34.9	55.0	10.2
Provider-sponsored	83.30	27.72	45.61	9.[illegible]	33.2	54.8	11.9
MULTISTATE ORGANIZATION							
Yes	98.61	30.16	54.14	14.30	30.8	54.9	14.3
No	88.30	29.82	47.89	10.59	33.7	54.4	11.9

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows many not add because of rounding.
3. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

Source: GHAA's Annual HMO Industry Survey.

Table 6 Mean Selected Health Care Expenses Per Member Per Month and as a Percent of Total Health Care Expenses, for Plans Reporting Detailed Expenses, by Selected Plan Characteristics, 1989[1,2,3]

	Health Care Expenses per Member per Month								Expenses as Percent of Health Care Expenses						
Selected Plan Characteristics	**Total**	**Inpatient**	**Physician Services**	**Other Professional Services**	**Outside Referrals**	**Emergency Room & Out-of-Area**	**Reinsurance**	**Other**	**Inpatient**	**Physician Services**	**Other Professional Services**	**Outside Referrals**	**Emergency Room & Out-of-Area**	**Reinsurance**	**Other**
ALL PLANS (n = 90)	$75.88	$24.99	$21.98	$ 6.11	$ 9.25	$ 3.34	$ .64	$ 8.18	33.3%	29.2%	7.8%	12.2%	4.3%	.9%	10.7%
(Median)	*76.45*	*24.87*	*20.75*	*3.90*	*7.93*	*2.22*	*.47*	*7.67*							
MODEL															
Staff	80.45	22.86	19.50	10.74	11.82	2.84	.48	9.27	28.6	24.4	13.4	14.4	3.5	.6	11.7
Group	80.72	25.32	23.99	6.71	7.17	3.77	.29	11.08	32.3	30.3	7.8	8.7	4.5	.4	13.3
Network	71.15	24.96	24.11	3.64	7.46	2.98	.54	5.90	35.1	33.8	4.8	10.7	3.9	.8	8.6
IPA	73.13	26.00	21.77	4.25	9.37	3.56	.91	7.22	35.6	29.8	5.7	12.9	4.7	1.3	9.9
REGION															
New England	91.14	27.46	20.56	9.24	16.37	4.71	.23	9.21	30.6	23.2	9.5	18.5	4.9	.2	9.6
Middle Atlantic	70.03	21.00	17.20	7.29	10.01	2.12	.66	9.33	30.0	25.4	9.9	14.0	3.2	1.0	13.3
South Atlantic	79.81	30.53	22.01	6.31	5.21	4.01	.57	8.90	39.1	26.8	7.6	6.9	4.7	.7	13.2
Midwest	74.29	25.98	19.07	5.21	11.25	3.89	.78	6.78	35.5	26.6	6.6	14.6	5.0	1.1	8.9
South Central	76.27	22.78	25.06	6.80	8.27	3.23	.92	8.90	30.0	32.7	9.5	10.6	4.2	1.2	11.4
Mountain	69.75	22.52	21.65	6.44	4.94	1.45	.74	10.09	32.2	31.0	8.2	8.0	2.0	1.1	14.9
Pacific	78.56	22.86	34.78	3.77	8.53	3.35	.09	4.49	29.4	43.5	5.0	11.4	4.5	.2	5.3
SIZE															
0–19,999	70.98	23.24	20.57	5.27	9.94	4.07	.81	6.79	33.3	29.0	7.3	13.7	5.4	1.2	9.7
20,000–49,999	73.21	24.73	21.90	4.03	10.41	2.09	.81	8.02	34.1	30.0	5.4	14.0	2.7	1.1	11.0
50,000–99,999	77.51	25.71	23.19	7.18	8.89	2.97	.50	7.10	33.1	30.3	9.0	11.4	3.8	.6	9.3
100,000+	84.85	27.49	23.23	8.00	7.54	3.43	.38	12.06	32.9	27.3	9.1	8.7	4.0	.5	14.0
AGE															
1–3	72.43	23.32	26.97	4.47	7.14	5.02	.79	4.51	32.8	35.6	5.9	10.7	6.8	1.1	6.7
4–7	72.29	25.27	20.42	4.66	10.23	2.83	.74	7.62	35.3	28.6	6.4	13.8	3.8	1.0	10.5
8–15	75.75	23.50	20.09	6.62	10.01	3.72	.73	8.89	31.3	27.1	8.6	13.0	4.6	1.0	11.6
16+	84.59	27.68	25.35	8.83	7.24	2.84	.25	9.94	33.0	30.4	9.9	8.5	3.4	.3	11.8
TAX STATUS															
Nonprofit	78.33	25.22	21.58	6.94	9.78	3.77	.49	8.43	32.6	27.9	6.6	12.5	4.7	.7	10.5
For-profit	72.94	24.71	22.46	5.11	8.62	2.82	.82	7.88	34.1	30.7	6.8	11.8	3.7	1.2	11.0
QUALIFICATION STATUS															
Federally Qualified	78.86	25.20	22.76	6.46	9.68	3.31	.55	9.11	32.1	29.0	7.9	12.4	4.1	.7	11.6
Non-qualified	67.67	24.40	19.85	5.12	8.09	3.41	.91	5.64	36.6	29.6	7.3	11.5	4.8	1.3	8.4
OWNERSHIP															
Blue Cross/Blue Shield	75.51	27.72	15.63	2.88	11.74	3.94	1.24	11.34	37.2	20.7	3.5	15.6	4.8	1.7	15.4
Commercial Insurer	76.42	25.12	20.01	6.23	10.76	4.13	.87	9.04	33.5	25.9	7.9	13.9	5.2	1.2	12.1
National HMO Company	79.98	26.42	25.52	6.47	6.90	3.00	.37	9.43	32.7	32.9	7.7	8.7	3.6	.5	11.7
Independent	77.01	23.18	21.66	7.71	11.01	3.22	.42	7.48	30.3	28.1	9.9	14.3	4.1	.6	9.6
Provider-sponsored	68.94	25.24	23.45	4.30	6.11	3.01	.88	5.78	37.3	34.0	5.9	8.6	4.3	1.3	8.3
MULTISTATE ORGANIZATION															
Yes	79.22	25.76	21.79	6.21	9.88	3.57	.49	9.76	32.5	27.7	7.6	12.7	4.4	.6	12.4
No	73.55	24.44	22.11	6.03	8.82	3.18	.75	7.08	33.8	30.2	7.9	11.8	4.2	1.1	9.6

Table 6 *(continued)* Mean Selected Health Care Expenses Per Member Per Month and as a Percent of Total Health Care Expenses, for Plans Reporting Detailed Expenses, by Selected Plan Characteristics, 1989[1,2,3]

	Health Care Expenses per Member per Month								Expenses as Percent of Health Care Expenses						
Selected Plan Characteristics	Total	Inpatient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other	Inpatient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other
PLANS > 3 YEARS (n=81)	$76.26	$25.17	$21.41	$ 6.29	$ 9.49	$ 3.15	$ .63	$ 8.59	33.3%	28.5%	8.0%	12.3%	4.0%	.9%	11.2%
MODEL															
Staff	80.19	24.01	16.53	11.28	12.29	2.86	.50	$ 9.65	30.1	21.0	14.1	14.9	3.5	.6	12.1
Group	80.72	25.32	23.99	6.71	7.17	3.77	.29	11.08	32.3	30.3	7.8	8.7	4.5	.4	13.3
Network	72.72	25.62	24.71	3.76	7.65	2.82	.58	6.09	35.3	33.8	4.9	10.8	3.5	.9	8.8
IPA	73.01	25.65	21.94	3.99	9.64	3.16	.89	7.70	35.1	30.2	5.5	13.1	4.3	1.2	10.5
REGION															
New England	91.14	27.46	20.56	9.24	16.37	4.71	.23	9.21	30.6	23.2	9.5	18.5	4.9	.2	9.6
Middle Atlantic	71.77	21.41	17.22	7.76	10.47	1.86	.72	9.87	29.8	24.7	10.4	14.4	2.6	1.1	13.9
South Atlantic	78.40	29.30	21.98	5.92	4.88	3.15	.43	11.70	38.3	27.7	7.2	6.4	3.9	.5	14.8
Midwest	74.65	26.07	19.33	5.29	11.09	3.64	.73	7.08	35.5	27.0	6.7	14.2	4.6	1.0	9.3
South Central	79.20	23.35	25.13	7.47	8.81	3.61	1.00	9.46	29.5	31.3	10.3	10.9	4.6	1.3	11.7
Mountain	69.75	22.52	21.65	6.44	4.94	1.45	.74	10.09	32.2	31.0	8.2	8.0	2.0	1.1	14.9
Pacific	77.68	25.72	29.26	4.24	9.30	3.47	.10	4.83	33.0	37.4	5.6	12.5	4.7	.2	5.7
SIZE															
0–19,999	70.25	22.97	18.79	5.61	10.59	3.63	.81	7.54	33.2	27.5	7.9	14.3	4.8	1.2	10.7
20,000–49,999	73.21	24.73	21.90	4.03	10.41	2.09	.81	8.02	34.1	30.0	5.4	14.0	2.7	1.1	11.0
50,000–99,999	78.11	26.13	22.77	7.19	9.23	3.06	.50	7.16	33.4	29.4	8.9	11.9	3.9	.6	9.3
100,000+	84.85	27.49	23.23	8.00	7.54	3.43	.38	12.06	32.9	27.3	9.1	8.7	4.0	.5	14.0
AGE															
4–7	72.29	25.27	20.42	4.66	10.23	2.83	.74	7.62	35.3	28.6	6.4	13.8	3.8	1.0	10.5
8–15	75.75	23.50	20.09	6.62	10.01	3.72	.73	8.89	31.3	27.1	8.6	13.0	4.6	1.0	11.6
16+	84.59	27.68	25.35	8.83	7.24	2.84	.25	9.94	33.0	30.4	9.9	8.5	3.4	.3	11.8
TAX STATUS															
Nonprofit	78.69	24.96	21.38	7.17	9.86	3.73	.48	8.91	32.2	27.6	8.9	12.4	4.6	.6	11.1
For-profit	73.07	25.46	21.47	5.13	8.99	2.39	.82	8.17	34.9	29.5	6.8	12.2	3.2	1.2	11.3
QUALIFICATION STATUS															
Federally Qualified	79.31	25.77	21.79	6.66	9.93	3.39	.56	9.32	32.6	27.7	8.1	12.6	4.2	.7	11.8
Non-qualified	65.60	23.09	20.11	4.98	7.96	2.32	.87	6.04	36.1	31.2	7.4	11.2	3.4	1.3	9.1
OWNERSHIP															
Blue Cross/Blue Shield	75.51	27.72	15.63	2.88	11.74	3.94	1.24	11.34	37.2	20.7	3.5	15.6	4.8	1.7	15.4
Commercial Insurer	78.99	24.58	22.49	6.46	11.69	2.85	.77	9.77	31.6	28.1	8.1	14.4	3.6	1.0	12.8
National HMO Company	79.65	26.09	23.92	6.34	7.56	3.11	.35	10.19	32.6	31.2	7.5	9.6	3.8	.5	12.5
Independent	77.60	24.18	19.84	8.15	11.50	3.18	.45	7.81	31.2	25.7	10.4	14.9	4.0	.6	9.9
Provider-sponsored	69.04	24.97	24.24	4.56	5.27	2.86	.83	6.14	36.9	35.1	6.3	7.3	4.1	1.2	8.8
MULTISTATE ORGANIZATION															
Yes	80.76	25.58	21.73	6.38	10.65	3.35	.45	10.57	31.6	27.1	7.7	13.4	4.0	.6	13.2
No	73.47	24.92	21.21	6.21	8.77	3.03	.74	7.36	34.4	29.3	8.2	11.7	4.0	1.0	9.9

Table 6 (continued) Mean Selected Health Care Expenses Per Member Per Month and as a Percent of Total Health Care Expenses, for Plans Reporting Detailed Expenses, by Selected Plan Characteristics, 1989[1,2,3]

	Health Care Expenses per Member per Month								Expenses as Percent of Health Care Expenses						
Selected Plan Characteristics	Total	Inpatient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other	Inpatient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other
PROFITABLE PLANS > 3 YEARS[4] (n = 49)	$75.19	$25.45	$22.14	$ 5.30	$ 9.53	$ 3.00	$ .59	$ 7.54	34.2%	29.5%	6.7%	12.7%	3.9%	.8%	10.2%
MODEL															
Staff	77.75	23.56	16.52	9.94	12.23	2.86	.50	8.92	30.4	21.7	12.6	15.4	3.6	.6	11.7
Group	75.62	25.09	26.57	4.62	6.46	3.16	.36	7.97	34.4	35.1	5.7	8.5	3.9	.5	10.2
Network	75.32	27.70	28.35	4.35	6.52	2.12	.37	4.51	37.1	36.5	5.2	9.3	2.7	.5	6.2
IPA	72.63	26.24	22.20	2.01	10.20	3.45	.90	7.53	35.9	30.7	2.6	14.1	4.7	1.2	10.6
REGION															
New England	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Middle Atlantic	74.05	21.28	16.67	9.60	11.97	2.12	.37	8.72	28.8	22.9	12.6	15.8	3.0	.5	12.2
South Atlantic	73.05	30.97	20.56	4.91	4.74	3.26	.49	7.01	43.6	27.6	6.1	6.6	4.1	.6	10.0
Midwest	74.81	26.68	19.36	4.29	12.20	3.95	.72	6.30	36.3	26.8	5.4	15.6	5.0	.9	8.4
South Central	77.88	21.27	33.70	3.27	5.55	2.63	1.09	10.38	27.4	43.2	4.5	7.0	3.4	1.4	13.1
Mountain	72.63	22.08	26.08	5.34	4.09	1.62	.52	10.74	29.8	35.8	5.9	7.0	2.2	.8	15.5
Pacific	79.02	28.11	29.52	3.68	7.48	3.53	.35	5.67	35.0	35.8	5.4	11.1	4.5	.5	6.7
SIZE															
0–19,999	66.46	19.97	18.80	3.54	12.61	3.66	.87	6.65	31.1	29.7	4.7	17.6	5.1	1.2	10.1
20,000–49,999	75.94	27.16	20.52	4.16	11.53	2.11	.59	8.24	36.4	26.8	5.3	15.0	2.7	.7	11.0
50,000–99,999	77.34	26.19	24.04	7.05	8.71	2.75	.51	6.18	33.8	31.0	8.9	11.5	3.5	.7	8.3
100,000+	79.78	28.32	23.86	5.12	6.16	3.48	.46	10.10	35.9	29.3	6.1	7.9	4.3	.6	12.5
AGE															
4–7	70.47	26.27	19.75	3.00	10.97	2.29	.74	6.88	37.8	28.7	3.8	14.9	3.2	1.0	9.9
8–15	75.73	23.01	20.51	6.94	10.63	3.70	.71	7.74	30.4	27.2	9.0	14.0	4.7	.9	10.4
16+	80.97	28.35	28.11	5.80	5.67	2.83	.20	8.15	35.2	34.6	6.7	7.3	3.6	.3	10.2
TAX STATUS															
Nonprofit	76.82	24.90	22.46	5.67	10.38	3.39	.51	7.57	32.9	29.4	7.1	13.6	4.3	.7	9.7
For-profit	72.11	26.48	21.50	4.60	7.93	2.25	.75	7.49	36.6	29.9	5.8	11.0	3.1	1.0	11.0
QUALIFICATION STATUS															
Federally Qualified	77.43	25.81	22.89	6.04	9.24	3.02	.59	7.90	33.2	29.5	7.6	12.2	3.8	.8	10.4
Non-qualified	66.46	24.04	19.28	2.40	10.65	2.94	.61	6.14	37.7	29.7	3.2	14.6	4.2	.9	9.3
OWNERSHIP															
Blue Cross/Blue Shield	75.32	29.64	14.74	2.23	11.31	5.58	1.30	8.73	40.5	20.2	2.3	14.6	6.7	1.6	12.2
Commercial Insurer	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
National HMO Company	78.34	27.80	26.70	5.38	7.66	2.26	.37	6.75	34.3	34.8	6.6	10.5	2.8	.5	8.8
Independent	76.94	23.52	20.90	7.22	11.76	2.94	.41	7.58	30.5	26.8	9.2	15.6	3.9	.6	9.9
Provider-sponsored	69.41	26.30	24.88	2.76	5.66	2.41	.62	6.52	39.1	35.7	3.6	7.7	3.4	.9	9.3
MULTISTATE ORGANIZATION															
Yes	78.21	25.62	21.83	5.69	10.50	2.45	.54	9.59	32.2	27.9	7.0	14.0	3.0	.7	12.6
No	73.85	25.37	22.28	5.12	9.10	3.24	.62	6.64	35.0	30.3	6.5	12.1	4.3	.8	9.1

Table 6 *(continued)* Mean Selected Health Care Expenses Per Member Per Month and as a Percent of Total Health Care Expenses, for Plans Reporting Detailed Expenses, by Selected Plan Characteristics, 1989[1,2,3]

	Health Care Expenses per Member per Month								Expenses as Percent of Health Care Expenses						
Selected Plan Characteristics	Total	Inpatient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other	Inpatient	Physician Services	Other Professional Services	Outside Referrals	Emergency Room & Out-of-Area	Reinsurance	Other
UNPROFITABLE PLANS > 3 YEARS (n = 32)	$77.90	$24.75	$20.32	$ 7.81	$ 9.42	$ 3.38	$ .68	$10.19	32.1%	26.8%	10.0%	11.7%	4.2%	1.0%	12.8%
MODEL															
Staff	87.52	25.33	16.55	15.30	12.50	2.87	.51	11.84	29.0	18.9	18.6	13.5	3.2	.6	13.4
Group	87.27	25.62	20.67	9.40	8.08	4.55	.19	15.08	29.6	24.1	10.6	8.9	5.2	.2	17.3
Network	68.55	22.30	19.63	2.82	9.46	3.94	.93	8.62	32.4	30.1	4.4	13.1	4.7	1.6	12.9
IPA	73.45	24.97	21.64	6.23	9.01	2.82	.88	7.89	34.2	29.6	8.7	12.0	3.8	1.3	10.4
REGION															
New England	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Middle Atlantic	67.79	21.64	18.18	4.53	7.85	1.40	1.32	11.90	31.6	27.8	6.6	11.9	1.9	2.1	16.8
South Atlantic	83.75	27.63	23.40	6.92	5.02	3.05	.36	16.38	33.0	27.8	8.2	6.1	3.6	.4	19.6
Midwest	74.19	24.31	19.23	8.17	7.92	2.73	.76	9.30	33.1	27.5	10.4	10.4	3.5	1.1	12.0
South Central	80.08	24.74	19.42	10.26	10.98	4.26	.95	8.85	30.8	23.4	14.2	13.4	5.5	1.2	10.7
Mountain	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Pacific	76.34	23.33	28.99	4.80	11.13	3.40	-.15	3.99	31.1	38.9	5.8	13.9	4.8	-.1	4.7
SIZE															
0–19,999	73.02	25.17	18.78	7.13	9.11	3.61	.76	8.19	34.7	26.0	10.3	12.0	4.5	1.1	11.2
20,000–49,999	69.13	21.08	23.96	3.83	8.72	2.07	1.15	7.69	30.7	34.9	5.5	12.5	2.8	1.8	11.0
50,000–99,999	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
100,000+	91.83	26.35	22.43	11.96	9.45	3.36	.26	14.75	28.7	24.9	13.2	9.7	3.6	.3	16.0
AGE															
4–7	74.11	24.27	21.10	6.31	9.50	3.37	.74	8.35	32.7	28.5	9.0	12.6	4.4	1.1	11.2
8–15	75.79	24.60	19.19	5.90	8.65	3.74	.78	11.45	33.4	26.9	7.6	10.7	4.5	1.2	14.2
16+	91.83	26.35	19.83	14.90	10.38	2.88	.35	13.53	28.6	21.9	16.4	10.7	3.1	.4	15.0
TAX STATUS															
Nonprofit	82.94	25.09	18.89	10.60	8.68	4.48	.40	11.96	30.6	23.6	13.0	9.6	5.3	.6	14.2
For-profit	73.98	24.49	21.44	5.63	10.00	2.53	.89	8.82	33.3	29.3	7.7	13.3	3.3	1.3	11.7
QUALIFICATION STATUS															
Federally Qualified	82.36	25.70	20.04	7.67	11.03	3.99	.50	11.62	31.5	24.7	9.1	13.3	4.7	.7	14.0
Non-qualified	64.53	21.90	21.16	8.21	4.60	1.56	1.20	5.91	34.0	33.1	12.7	6.9	2.4	1.9	9.0
OWNERSHIP															
Blue Cross/Blue Shield	75.74	25.33	16.75	3.70	12.29	1.89	1.17	14.62	33.1	21.4	5.1	16.9	2.3	1.7	19.5
Commercial Insurer	80.78	24.56	22.30	7.30	13.52	2.79	.53	9.23	30.7	26.9	9.2	16.6	3.5	.7	11.8
National HMO Company	80.57	24.89	21.97	7.01	7.49	3.71	.34	12.59	31.3	28.7	8.2	8.9	4.4	.5	15.1
Independent	79.76	26.33	16.51	11.20	10.63	3.97	.56	8.56	33.8	22.1	14.5	12.4	4.4	.8	10.1
Provider-sponsored	68.24	22.04	22.84	8.54	4.39	3.83	1.31	5.29	32.2	33.9	12.2	6.4	5.6	1.9	7.7
MULTISTATE ORGANIZATION															
Yes	83.15	25.55	21.64	7.03	10.80	4.20	.36	11.49	31.1	26.4	8.3	12.8	4.9	.5	13.7
No	72.66	23.96	19.01	8.58	8.04	2.57	1.00	8.90	33.1	27.2	11.7	10.7	3.4	1.5	11.8

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.
3. Plans specified expenses for inpatient, physician services, outside referrals, and emergency room/out-of-area.
4. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey.

Table 7 Mean Selected Administrative Expenses Per Member Per Month and as a Percent of Administrative Expenses, for Plans Reporting Detailed Expenses, by Selected Plan Characteristics, 1989[1,2,3]

	Administrative Expenses per Member per Month							Expenses as Percent of Administrative Expenses				
	Total	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other	Administrative Expenses as % of Total Expenses	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other
ALL PLANS (n = 208)	$11.65	$ 4.63	$ .48	$ 1.22	$ 1.70	$ 3.62	12.9%	40.6%	3.8%	10.6%	15.1%	30.0%
MODEL												
Staff	11.54	5.04	.64	1.30	1.82	2.74	12.0	42.8	5.7	11.6	16.2	23.7
Group	10.35	3.65	.77	.93	1.47	3.52	10.5	35.7	5.3	10.6	15.1	33.3
Network	11.28	4.43	.36	1.11	2.37	3.01	13.2	41.1	3.4	9.4	21.9	24.2
IPA	12.07	4.83	.40	1.29	1.61	3.95	13.6	41.3	3.0	10.6	13.6	31.6
REGION												
New England	13.33	5.81	.59	1.55	1.46	3.92	12.6	45.8	3.7	11.3	13.4	25.9
Middle Atlantic	10.16	4.02	.45	1.16	1.84	2.69	12.2	40.6	4.0	11.1	18.2	26.1
South Atlantic	13.20	5.04	.72	1.29	1.99	4.17	13.8	40.2	5.3	9.8	15.5	29.2
Midwest	10.18	4.18	.42	1.02	1.56	3.01	12.4	41.2	3.8	10.1	15.4	29.5
South Central	12.76	4.44	.59	1.24	1.70	4.80	13.2	35.6	4.1	9.9	12.9	37.5
Mountain	12.65	5.38	.43	1.18	1.53	4.13	15.1	41.6	2.1	10.5	14.5	31.3
Pacific	11.61	4.73	.21	1.40	1.73	3.55	12.0	40.9	2.1	12.3	14.3	30.4
SIZE												
0–19,999	12.99	5.51	.39	1.50	2.12	3.48	14.6	43.5	3.0	11.1	16.8	25.6
20,000–49,999	12.58	4.90	.54	1.10	1.67	4.37	14.3	40.2	3.6	8.9	13.8	33.5
50,000–99,999	9.83	4.18	.39	1.12	1.43	2.72	10.8	42.3	3.9	11.3	14.6	27.8
100,000 +	10.54	3.58	.63	1.09	1.44	3.79	10.9	35.5	4.9	11.1	14.8	33.7
AGE												
1–3	13.78	5.59	.35	1.41	1.63	4.79	15.3	40.5	2.2	9.7	12.9	34.6
4–7	12.13	4.90	.45	1.27	1.77	3.74	13.9	42.0	3.4	10.3	14.7	29.7
8–15	10.65	4.09	.52	1.10	1.72	3.22	11.5	39.2	4.4	10.4	16.5	29.5
16 +	10.53	4.11	.61	1.17	1.44	3.20	10.6	38.9	4.9	12.6	14.9	28.8
TAX STATUS												
Nonprofit	10.30	4.21	.63	1.05	1.60	2.80	11.6	41.9	5.4	10.7	15.8	26.2
For-profit	12.53	4.90	.39	1.32	1.76	4.16	13.7	39.7	2.7	10.5	14.6	32.5
QUALIFICATION STATUS												
Federally Qualified	11.33	4.36	.54	1.24	1.67	3.52	12.3	39.5	4.3	11.3	15.3	29.7
Non-qualified	12.33	5.20	.37	1.16	1.76	3.84	14.0	42.9	2.7	9.1	14.6	36.7
OWNERSHIP												
Blue Cross/Blue Shield	11.57	4.35	.71	1.34	1.58	3.59	13.2	38.7	5.2	11.7	14.5	30.1
Commercial Insurer	15.17	4.70	.54	1.67	2.16	6.10	15.1	31.1	3.5	10.8	14.5	40.1
National HMO Company	9.73	3.50	.67	1.01	1.62	2.93	11.1	36.6	5.2	12.0	16.5	29.8
Independent	11.41	5.03	.36	1.24	1.95	2.83	12.2	45.1	3.3	10.8	17.5	23.3
Provider-sponsored	11.09	4.88	.35	.99	1.27	3.59	13.1	43.6	2.9	8.8	12.3	32.4
MULTISTATE ORGANIZATION												
Yes	12.21	4.16	.58	1.37	1.89	4.22	12.8	35.6	4.2	11.8	16.6	31.8
No	11.39	4.85	.44	1.15	1.61	3.34	12.9	42.9	3.6	10.0	14.3	29.2

Table 7 (continued) Mean Selected Administrative Expenses Per Member Per Month and as a Percent of Administrative Expenses, for Plans Reporting Detailed Expenses, by Selected Plan Characteristics, 1989[1,2,3]

	Administrative Expenses per Member per Month							Expenses as Percent of Administrative Expenses				
	Total	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other	Administrative Expenses as % of Total Expenses	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other
PLANS > 3 YEARS (n = 187)	$11.41	$ 4.52	$ .50	$ 1.20	$ 1.70	$ 3.49	12.6%	40.6%	3.9%	10.7%	15.3%	29.5%
MODEL												
Staff	11.45	4.84	.69	1.29	1.94	2.69	12.0	41.5	6.2	11.6	17.3	23.5
Group	10.47	3.74	.79	.96	1.48	3.50	10.6	36.3	5.5	10.9	14.9	32.4
Network	11.16	4.25	.42	1.11	2.17	3.22	13.0	40.6	3.9	9.7	20.6	25.2
IPA	11.71	4.71	.38	1.26	1.64	3.71	13.2	41.6	3.0	10.6	14.1	30.7
REGION												
New England	12.80	5.39	.66	1.47	1.57	3.71	12.1	44.6	4.1	11.2	14.7	25.4
Middle Atlantic	9.24	3.83	.29	1.10	1.68	2.34	10.9	41.6	3.3	11.5	17.8	25.8
South Atlantic	13.10	5.04	.77	1.24	2.10	3.94	14.0	40.5	5.8	9.6	16.5	27.7
Midwest	10.02	4.19	.46	1.00	1.51	2.86	12.3	42.2	4.2	10.2	15.1	28.4
South Central	12.68	4.22	.64	1.23	1.71	4.89	12.8	34.4	4.4	9.8	12.9	38.5
Mountain	12.62	5.40	.46	1.20	1.58	3.96	15.3	41.8	2.3	10.7	15.1	30.0
Pacific	11.55	4.50	.22	1.42	1.78	3.63	12.0	39.4	2.2	12.6	14.7	31.1
SIZE												
0–19,999	12.65	5.21	.45	1.52	2.11	3.36	14.2	42.8	3.4	11.6	16.8	25.3
20,000–49,999	12.49	4.97	.50	1.06	1.78	4.17	14.1	40.8	3.4	8.8	14.8	32.2
50,000–99,999	9.87	4.23	.41	1.13	1.42	2.70	10.7	42.9	4.1	11.4	14.4	27.2
100,000+	10.29	3.52	.64	1.05	1.44	3.64	10.9	35.6	4.9	11.1	15.0	33.4
AGE												
4–7	12.13	4.90	.45	1.27	1.77	3.74	13.9	42.0	3.4	10.3	14.7	29.7
8–15	10.65	4.09	.52	1.10	1.72	3.22	11.5	39.2	4.4	10.4	16.5	29.5
16+	10.53	4.11	.61	1.17	1.44	3.20	10.6	38.9	4.9	12.6	14.9	28.8
TAX STATUS												
Nonprofit	10.11	4.17	.62	1.02	1.50	2.80	11.3	42.2	5.4	10.7	15.1	26.5
For-profit	12.34	4.77	.41	1.32	1.85	3.99	13.5	39.5	2.9	10.6	15.4	31.6
QUALIFICATION STATUS												
Federally Qualified	11.15	4.32	.52	1.23	1.69	3.39	12.1	39.6	4.2	11.3	15.7	29.1
Non-qualified	12.06	5.02	.45	1.11	1.73	3.75	13.9	43.0	3.3	9.0	14.3	30.4
OWNERSHIP												
Blue Cross/Blue Shield	11.17	4.42	.57	1.29	1.59	3.29	12.5	39.9	4.5	11.7	14.9	29.0
Commercial Insurer	15.40	4.82	.58	1.69	2.15	6.16	14.9	31.5	3.6	10.7	14.2	39.9
National HMO Company	9.66	3.41	.68	.99	1.62	2.96	11.0	36.1	5.2	11.9	16.6	30.2
Independent	11.31	4.91	.40	1.23	1.88	2.90	12.0	44.8	3.6	10.9	17.0	23.8
Provider-sponsored	10.47	4.59	.41	.94	1.36	3.17	13.0	43.7	3.4	9.0	13.4	30.6
MULTISTATE ORGANIZATION												
Yes	12.13	4.12	.61	1.36	1.85	4.20	12.7	35.5	4.4	11.9	16.2	32.0
No	11.07	4.71	.44	1.12	1.64	3.16	12.5	43.0	3.7	10.1	14.9	28.3

Table 7 (continued) Mean Selected Administrative Expenses Per Member Per Month and as a Percent of Administrative Expenses, for Plans Reporting Detailed Expenses, by Selected Plan Characteristics, 1989[1,2,3]

	Administrative Expenses per Member per Month							Expenses as Percent of Administrative Expenses				
	Total	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other	Administrative Expenses as % of Total Expenses	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other
PROFITABLE PLANS > 3 YEARS[4] (n = 120)	$11.02	$ 4.53	$ .40	$ 1.08	$ 1.60	$ 3.40	12.5%	41.5%	3.4%	10.2%	14.8%	30.0%
MODEL												
Staff	11.24	5.00	.67	1.28	1.82	2.47	12.4	43.0	6.0	11.8	16.8	22.4
Group	10.30	4.01	.40	.91	1.36	3.62	10.6	38.8	2.4	10.8	13.9	34.2
Network	11.15	3.84	.35	1.14	1.90	3.92	12.8	34.8	3.7	9.6	16.9	35.1
IPA	11.14	4.70	.33	1.05	1.55	3.51	13.0	43.3	2.8	9.7	14.1	30.0
REGION												
New England	11.82	4.15	.53	1.05	1.55	4.55	11.7	35.7	3.8	8.9	13.2	38.5
Middle Atlantic	9.87	4.34	.37	1.00	1.74	2.42	11.4	46.1	4.0	9.8	16.9	23.2
South Atlantic	12.31	5.25	.62	1.06	1.87	3.51	13.6	43.8	4.7	9.4	16.3	25.7
Midwest	9.56	4.00	.36	.99	1.39	2.82	12.0	41.8	3.6	10.4	14.6	29.6
South Central	12.76	4.44	.44	1.07	1.56	5.26	12.7	35.9	2.9	8.9	11.8	40.4
Mountain	12.37	5.98	.38	1.25	1.47	3.28	15.1	46.2	1.6	11.6	15.5	25.1
Pacific	11.18	4.37	.18	1.29	1.79	3.55	11.8	38.2	2.0	11.9	14.5	33.4
SIZE												
0–19,999	11.41	4.97	.38	1.17	1.69	3.20	14.2	43.4	3.4	10.0	14.6	28.5
20,000–49,999	12.44	5.27	.41	1.05	1.81	3.89	14.1	43.4	3.0	8.9	15.0	29.8
50,000–99,999	10.05	4.40	.40	1.08	1.47	2.70	11.1	44.2	4.0	11.0	14.5	26.3
100,000+	10.17	3.62	.40	1.05	1.46	3.64	11.1	36.1	3.2	11.0	15.1	34.5
AGE												
4–7	11.77	5.13	.34	1.12	1.64	3.54	14.0	44.7	2.8	9.7	13.7	29.1
8–15	10.12	3.80	.42	.99	1.62	3.29	11.2	38.5	4.1	9.9	16.3	31.2
16+	11.26	4.77	.54	1.19	1.45	3.31	11.7	40.5	3.3	12.4	14.1	29.7
TAX STATUS												
Nonprofit	10.10	4.32	.48	1.00	1.42	2.88	11.9	43.0	4.4	10.5	13.8	28.3
For-profit	11.80	4.71	.34	1.14	1.76	3.84	13.0	40.3	2.5	9.9	15.8	31.5
QUALIFICATION STATUS												
Federally Qualified	10.81	4.37	.45	1.09	1.57	3.33	12.0	40.5	3.7	10.6	14.9	30.3
Non-qualified	11.56	4.95	.29	1.04	1.70	3.58	13.7	44.1	2.5	9.2	14.7	29.4
OWNERSHIP												
Blue Cross/Blue Shield	10.81	4.27	.58	1.08	1.52	3.36	13.0	39.5	5.2	10.9	14.8	29.6
Commercial Insurer	13.78	4.74	.55	1.29	1.95	5.25	12.6	34.8	3.5	9.9	14.6	37.1
National HMO Company	7.95	3.32	.13	.92	1.22	2.35	10.2	39.9	1.6	13.3	15.0	30.3
Independent	11.53	5.03	.39	1.15	1.80	3.16	12.3	44.5	3.6	9.8	15.5	26.6
Provider-sponsored	10.66	4.38	.38	.96	1.38	3.56	13.5	41.4	2.9	9.2	13.9	32.7
MULTISTATE ORGANIZATION												
Yes	10.56	4.03	.35	1.08	1.45	3.66	11.5	38.3	2.8	11.4	14.1	33.4
No	11.18	4.71	.42	1.08	1.66	3.31	12.8	42.7	3.6	9.8	15.1	28.9

Table 7 *(continued)* Mean Selected Administrative Expenses Per Member Per Month and as a Percent of Administrative Expenses, for Plans Reporting Detailed Expenses, by Selected Plan Characteristics, 1989[1,2,3]

	Administrative Expenses per Member per Month							Expenses as Percent of Administrative Expenses				
	Total	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other	Administrative Expenses as % of Total Expenses	Compensation	Interest	Occupancy, Depreciation, and Amortization	Marketing	Other
UNPROFITABLE PLANS > 3 YEARS (n = 67)	$12.11	$ 4.50	$ .67	$ 1.41	$ 1.88	$ 3.65	12.8%	38.9%	4.9%	11.5%	16.1%	28.5%
MODEL												
Staff	12.29	4.19	.81	1.31	2.41	3.56	10.2	35.2	6.7	10.9	19.5	27.7
Group	10.77	3.[illegible]	1.51	1.04	1.68	3.29	10.7	31.9	11.1	11.1	16.8	29.1
Network	11.21	5.40	.59	1.03	2.93	1.25	13.8	56.8	4.7	9.8	31.2	-2.5
IPA	12.51	4.74	.46	1.55	1.76	4.01	13.4	39.1	3.3	11.8	13.9	31.8
REGION												
New England	13.56	6.36	.76	1.79	1.59	3.05	12.4	51.6	4.4	13.0	15.8	15.3
Middle Atlantic	8.35	3.10	.17	1.25	1.61	2.22	10.2	35.3	2.3	14.0	19.1	29.3
South Atlantic	14.75	4.62	1.09	1.61	2.58	4.84	14.8	33.4	8.0	9.8	16.9	31.9
Midwest	11.29	4.71	.75	1.04	1.83	2.96	13.0	43.1	5.9	9.6	16.5	24.9
South Central	12.58	3.96	.88	1.41	1.89	4.44	12.8	32.6	6.1	10.8	14.1	36.3
Mountain	*	*	*	*	*	*	*	*	*	*	*	*
Pacific	12.18	4.72	.27	1.65	1.77	3.75	12.3	41.4	2.5	13.7	15.1	27.2
SIZE												
0–19,999	13.55	5.39	.50	1.78	2.42	3.47	14.2	42.4	3.4	12.7	18.4	23.0
20,000–49,999	12.60	4.26	.70	1.10	1.72	4.82	14.2	34.8	4.5	8.5	14.4	37.8
50,000–99,999	9.44	3.82	.42	1.22	1.29	2.69	9.9	39.8	4.3	12.3	14.2	29.3
100,000+	10.70	3.18	1.44	1.07	1.37	3.65	10.2	33.8	10.8	11.4	14.6	29.4
AGE												
4–7	12.57	4.64	.58	1.44	1.92	3.99	13.7	38.8	4.1	10.9	15.8	30.4
8–15	12.64	5.20	.92	1.49	2.10	2.94	12.5	41.7	5.7	12.4	17.0	23.2
16+	9.08	2.80	.74	1.13	1.42	2.99	8.2	35.6	8.0	13.1	16.4	26.9
TAX STATUS												
Nonprofit	10.13	3.82	.98	1.06	1.68	2.59	10.0	40.4	7.8	11.1	18.4	22.3
For-profit	13.15	4.86	.50	1.59	1.99	4.20	14.2	38.2	3.4	11.7	14.9	31.8
QUALIFICATION STATUS												
Federally Qualified	11.77	4.23	.65	1.48	1.92	3.49	12.1	38.0	5.1	12.7	17.2	27.0
Non-qualified	12.92	5.14	.71	1.24	1.80	4.02	14.3	41.1	4.6	8.6	13.7	32.0
OWNERSHIP												
Blue Cross/Blue Shield	11.61	4.60	.56	1.56	1.69	3.20	11.9	40.5	3.6	12.6	15.1	28.2
Commercial Insurer	16.79	4.89	.60	2.02	2.33	6.95	16.9	28.7	3.7	11.4	13.9	42.3
National HMO Company	11.51	3.51	1.28	1.06	2.04	3.62	11.7	31.9	9.2	10.5	18.3	30.1
Independent	10.28	4.36	.43	1.60	2.25	1.64	10.5	45.8	3.8	16.0	23.9	10.6
Provider-sponsored	10.10	4.97	.46	.91	1.31	2.44	12.1	48.0	4.4	8.7	12.4	26.6
MULTISTATE ORGANIZATION												
Yes	13.82	4.22	.88	1.66	2.28	4.78	14.0	32.5	6.1	12.4	18.5	30.5
No	10.81	4.72	.50	1.22	1.58	2.79	11.8	43.8	4.1	10.8	14.3	27.0

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.
3. Plans specified expenses for compensation, marketing, and occupancy/depreciation/amortization.
4. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 8 Mean Selected Medicare Expenses Per Member Per Month and as a Percent of Medicare Expenses, 1989[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Medicare Expenses		
	Total	Physician	Facility	Administrative	Physician	Facility	Administrative
ALL RISK CONTRACTORS (n = 18)	$280.31	$111.43	$148.12	$ 20.76	38.9%	53.5%	7.6%
MODEL							
Staff/Group	276.37	94.68	161.98	19.71	33.0	59.7	7.3
Network/IPA	282.28	119.81	141.19	21.28	41.9	50.4	7.7
AGE							
1–3	*	*	*	*	*	*	*
4–7	269.37	105.88	141.03	22.45	38.3	53.2	8.5
8–15	278.62	110.40	150.32	17.89	38.5	55.0	6.6
16+	293.97	118.63	151.69	23.65	40.4	51.5	8.1
REGION[3]							
Midwest	271.45	99.71	148.60	23.14	36.3	55.2	8.5
Northeast/South	287.60	118.83	153.65	15.12	39.5	54.8	5.7
West	287.12	123.79	138.87	24.46	43.3	48.1	8.6
TAX STATUS							
Nonprofit	276.95	111.85	145.44	19.66	39.7	53.1	7.2
For-profit	285.60	110.78	152.33	22.49	37.8	54.1	8.1
ALL COST/HCPP CONTRACTORS (n = 11)	160.27	125.71	17.98	16.58	75.9	13.9	10.2
MODEL							
Staff/Group	169.72	138.91	18.77	12.03	78.6	13.6	7.9
Network/IPA	154.88	118.17	17.53	19.18	74.6	14.0	11.4
AGE							
1–7	178.83	137.60	18.55	22.68	77.1	12.6	10.3
8+	144.81	115.80	17.50	11.51	75.1	14.8	10.1
TAX STATUS							
Nonprofit	179.63	139.59	20.19	19.85	74.1	14.9	11.0
For-profit	126.40	101.42	14.12	10.86	79.7	11.8	8.5

Notes:
1. Excludes plans with 1,000 Medicare enrollees or fewer.
2. Rows may not add because of rounding.
3. Regions are defined as follows: Northeast/South = New England, Middle Atlantic, South Atlantic, South Central; West = Mountain, Pacific.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey

Table 9 Mean Selected Medicaid Expenses Per Member Per Month and as a Percent of Medicaid Expenses, 1989[1,2]

	Expenses per Member per Month				Expenses as Percent of Total Medicaid Expenses		
	Total	Physician	Facility	Administrative	Physician	Facility	Administrative
ALL PLANS (n = 19)	$ 90.59	$ 44.89	$ 31.86	$ 13.83	50.6%	35.2%	14.2%
MODEL							
Staff/Group	87.91	48.47	28.07	11.37	56.0	32.7	11.3
Network/IPA	92.53	42.29	34.62	15.62	46.7	37.0	16.3
AGE							
1–7	96.88	45.91	32.34	18.63	48.1	33.6	18.3
8+	81.93	43.50	31.21	7.23	54.1	37.3	8.6

Notes:

1. Excludes plans with 1,000 Medicaid enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. Rows may not add because of rounding.

Source: GHAA's Annual HMO Industry Survey

Table 10 Mean Rates of Return by Selected Plan Characteristics, 1989[1]

	All Plans						Plans >3 Years					
	Gross Return on Assets (n = 268)	Net Return on Assets (n = 268)	Gross Return on Revenues (n = 268)	Net Return on Revenues (n = 268)	Gross Return on Equity[3] (n = 241)	Net Return on Equity[3] (n = 241)	Gross Return on Assets (n = 236)	Net Return on Assets (n = 236)	Gross Return on Revenues (n = 236)	Net Return on Revenues (n = 236)	Gross Return on Equity[3] (n = 211)	Net Return on Equity[3] (n = 211)
TOTAL (Mean)	.000	.001	-.002	-.001	-.119	-.128	.008	.010	.003	.004	.007	-.006
(75th percentile)	*.128*	*.113*	*.034*	*.031*	*.614*	*.545*	*.128*	*.112*	*.034*	*.032*	*.622*	*.566*
(Median)	*.044*	*.044*	*.012*	*.011*	*.218*	*.222*	*.045*	*.045*	*.014*	*.014*	*.248*	*.247*
(25th percentile)	*-.108*	*-.094*	*-.026*	*-.024*	*-.367*	*-.308*	*-.060*	*-.054*	*-.018*	*-.016*	*-.173*	*-.114*
MODEL												
Staff	.050	.047	.016	.016	.027	.011	.057	.053	.017	.017	.033	.017
Group	-.029	-.031	-.009	-.010	-.052	-.075	-.030	-.032	-.009	-.010	-.055	-.078
Network	.070	.058	.009	.006	.404	.320	.047	.036	.014	.011	.364	.282
IPA	-.019	-.013	-.007	-.003	-.273	-.263	-.003	.005	.001	.003	-.065	-.059
REGION												
New England	-.030	-.033	-.006	-.007	-.061	-.076	-.033	-.040	-.006	-.008	-.051	-.095
Middle Atlantic	-.080	-.073	-.017	-.014	-.492	-.495	-.062	-.058	-.010	-.008	-.214	-.233
South Atlantic	.009	-.002	-.001	-.005	-.268	-.293	.027	.018	.004	.002	-.126	-.162
Midwest	.033	.025	.008	.006	.089	.046	.042	.035	.015	.013	.198	.160
South Central	-.060	-.012	-.016	-.003	-.350	-.126	-.067	-.011	-.017	-.002	-.203	.055
Mountain	.057	.050	.012	.012	-.284	-.337	.081	.074	.016	.017	-.140	-.195
Pacific	.038	.033	-.002	.002	.168	.086	.022	.022	.002	.004	.161	.076
SIZE												
0–19,999	-.063	-.044	-.029	-.020	-.741	-.638	-.062	-.034	-.020	-.011	-.617	-.488
20,000–49,999	011	.008	.006	.005	.091	.041	.026	.024	.011	.010	.304	.253
50,000–99,999	.032	.029	.011	.010	.065	.033	.028	.025	.011	.010	.043	.004
100,000+	.037	.024	.011	.007	.217	.140	.036	.023	.010	.007	.210	.136
AGE												
1–3	-.055	-.062	-.040	-.037	-1.003	-.988	–	–	–	–	–	–
4–7	-.028	-.016	-.007	-.003	-.236	-.201	-.028	-.016	-.007	-.003	-.236	-.201
8-15	.054	.043	.017	.014	.425	.342	.054	.043	.017	.014	.425	.342
16+	.035	.032	.008	.008	-.066	-.087	.035	.032	.008	.008	-.066	-.087
TAX STATUS												
Nonprofit	.021	.021	.006	.006	.032	.022	.017	.016	.008	.008	.011	.005
For-profit	-.014	-.012	-.007	-.005	-.224	-.233	.001	.005	-.001	.001	.003	-.014
QUALIFICATION STATUS												
Federally Qualified	.012	.010	.004	.004	.105	.066	.011	.009	.004	.004	.155	.114
Non-qualified	-.023	-.015	-.013	-.009	-.530	-.485	-.001	.011	.002	.005	-.317	-.270
OWNERSHIP												
Blue Cross/Blue Shield	-.063	-.028	-.011	-.002	-.670	-.517	-.047	-.011	-.006	.003	-.414	-.251
Commercial Insurer	-.072	-.051	-.044	-.030	-.700	-.612	-.064	-.035	-.032	-.019	-.483	-.412
National HMO Company	-.013	-.022	-.005	-.008	.127	.066	-.021	-.031	-.007	-.009	.127	.066
Independent	.067	.059	.014	.012	.309	.249	.071	.061	.019	.017	.335	.271
Provider-sponsored	-.003	-.013	.006	.004	-.173	-.234	.014	.004	.011	.009	-.006	-.075
MULTISTATE ORGANIZATION												
Yes	-.021	-.017	-.020	-.015	-.164	-.152	-.035	-.030	-.014	-.010	-.125	-.127
No	.010	.010	.006	.006	-.099	-.118	.027	.028	.011	.011	.065	.047

Table 10 (continued) Mean Rates of Return by Selected Plan Characteristics, 1989[1]

	Profitable Plans >3 Years[2]						Unprofitable Plans >3 Years					
	Gross Return on Assets (n = 159)	Net Return on Assets (n = 159)	Gross Return on Revenues (n = 159)	Net Return on Revenues (n = 159)	Gross Return on Equity[3] (n = 153)	Net Return on Equity[3] (n = 153)	Gross Return on Assets (n = 77)	Net Return on Assets (n = 77)	Gross Return on Revenues (n = 77)	Net Return on Revenues (n = 77)	Gross Return on Equity[3] (n = 58)	Net Return on Equity[3] (n = 58)
PLANS >3 YEARS	.121	.109	.036	.032	.617	.550	-.227	-.195	-.064	-.053	-1.602	-1.472
MODEL												
Staff	.102	.095	.033	.032	.407	.389	-.138	-.130	-.051	-.046	-1.400	-1.409
Group	.090	.086	.024	.023	.394	.362	-.305	-.305	-.087	-.087	-1.529	-1.524
Network	.133	.121	.037	.033	.619	.536	-.155	-.162	-.040	-.042	-.402	-.480
IPA	.132	.116	.039	.035	.732	.646	-.235	-.187	-.065	-.050	-1.868	-1.654
REGION												
New England	.094	.080	.027	.023	.490	.408	-.202	-.200	-.051	-.050	-1.240	-1.200
Middle Atlantic	.098	.094	.033	.032	.577	.536	-.247	-.234	-.060	-.054	-1.909	-1.880
South Atlantic	.137	.122	.042	.037	.529	.468	-.224	-.219	-.081	-.079	-1.438	-1.423
Midwest	.117	.107	.034	.031	.650	.602	-.208	-.206	-.047	-.046	-1.611	-1.611
South Central	.127	.115	.036	.031	.548	.532	-.326	-.179	-.086	-.047	-1.516	-.779
Mountain	.159	.142	.041	.038	.669	.570	-.154	-.130	-.058	-.047	-2.081	-2.030
Pacific	.120	.104	.037	.033	.739	.587	-.173	-.143	-.067	-.052	-1.573	-1.455
SIZE												
0–19,999	.143	.133	.041	.038	.685	.639	-.234	-.175	-.072	-.052	-1.866	-1.570
20,000–49,999	.131	.119	.039	.036	.611	.545	-.257	-.232	-.066	-.060	-1.007	-.994
50,000–99,999	.115	.107	.032	.029	.589	.543	-.212	-.202	-.046	-.044	-1.975	-1.991
100,000+	.104	.086	.032	.027	.609	.512	-.189	-.183	-.061	-.059	-1.286	-1.271
AGE												
4–7	.131	.120	.038	.035	.650	.596	-.251	-.208	-.069	-.056	-1.826	-1.632
8–15	.118	.102	.034	.030	.675	.578	-.224	-.214	-.057	-.054	-1.046	-1.056
16+	.101	.093	.032	.030	.377	.345	-.117	-.109	-.046	-.042	-1.249	-1.239
TAX STATUS												
Nonprofit	.105	.105	.033	.032	.555	.553	-.230	-.231	-.059	-.059	-1.880	-1.904
For-profit	.135	.112	.039	.032	.673	.546	-.225	-.175	-.067	-.051	-1.444	-1.226
QUALIFICATION STATUS												
Federally Qualified	.120	.109	.036	.033	.607	.539	-.219	-.201	-.064	-.057	-1.166	-1.124
Non-qualified	.124	.109	.035	.030	.641	.576	-.244	-.180	-.064	-.046	-2.370	-2.085
OWNERSHIP												
Blue Cross/Blue Shield	.112	.102	.041	.039	.467	.441	-.257	-.160	-.067	-.043	-1.702	-1.262
Commercial Insurer	.103	.088	.032	.027	.469	.384	-.200	-.136	-.084	-.057	-1.366	-1.150
National HMO Company	.153	.136	.044	.040	.763	.673	-.265	-.265	-.078	-.078	-1.210	-1.210
Independent	.117	.106	.032	.029	.657	.587	-.133	-.135	-.038	-.038	-1.273	-1.310
Provider-sponsored	.122	.111	.035	.031	.600	.534	-.271	-.275	-.050	-.051	-2.699	-2.781
MULTISTATE ORGANIZATION												
Yes	.126	.110	.039	.034	.587	.503	-.231	-.199	-.078	-.064	-1.313	-1.177
No	.120	.109	.035	.032	.627	.566	-.224	-.192	-.054	-.046	-1.806	-1.679

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.
3. Plans with negative equity are excluded.

Source: GHAA's Annual HMO Industry Survey.

Table 11 Mean Liquidity Measures by Selected Plan Characteristics, 1989[1]

	All Plans (n = 255)				Plans >3 Years (n = 228)			
	Current Ratio	Days Premiums Receivable	Days Cash on Hand	Days Claims & IBNR Payable	Current Ratio	Days Premiums Receivable	Days Cash on Hand	Days Claims & IBNR Payable
TOTAL (Mean)	1.06	22.36	17.83	53.55	1.06	21.83	16.14	53.05
(75th percentile)	*1.25*	*30.79*	*30.34*	*69.21*	*1.23*	*30.31*	*28.23*	68.22
(Median)	*1.09*	*15.00*	*7.41*	*54.68*	*1.08*	*14.94*	*7.15*	53.97
(25th percentile)	*.91*	*7.88*	*.03*	*37.50*	*.90*	*7.96*	*.01*	37.26
MODEL								
Staff	1.06	20.11	16.11	41.48	1.06	18.74	16.17	42.91
Group	.88	18.52	8.30	32.84	.87	19.06	8.58	33.83
Network	1.16	21.84	21.33	46.93	1.16	22.49	21.87	48.53
IPA	1.08	23.68	19.51	61.40	1.08	23.02	16.75	60.78
REGION								
New England	1.12	31.39	30.77	54.32	1.08	32.66	19.66	51.45
Middle Atlantic	.96	24.71	8.20	65.00	.98	24.03	6.84	62.67
South Atlantic	1.05	26.63	15.20	52.04	1.05	22.86	14.25	51.24
Midwest	1.08	16.04	18.58	51.65	1.08	16.80	18.42	53.66
South Central	.99	29.48	9.74	61.12	1.01	29.23	5.63	58.97
Mountain	1.21	19.25	22.33	47.78	1.21	19.40	21.51	48.12
Pacific	1.05	18.08	25.03	44.13	1.05	18.08	25.03	44.13
SIZE								
0–19,999	1.05	24.28	24.67	60.37	1.05	23.09	19.67	58.96
20,000–49,999	1.18	23.64	18.27	53.00	1.17	23.72	17.49	53.87
50,000–99,999	1.04	22.94	15.18	50.73	1.05	23.17	15.59	50.49
100,000+	.94	18.00	11.65	48.69	.95	17.41	11.84	48.81
AGE								
1–3	1.07	26.77	32.07	57.77	–	–	–	–
4–7	1.08	24.74	16.27	57.67	1.08	24.74	16.27	57.67
8–15	1.04	18.78	17.75	52.24	1.04	18.78	17.75	52.24
16+	1.00	18.09	12.40	38.72	1.00	18.09	12.40	38.72
TAX STATUS								
Nonprofit	1.05	19.41	16.71	48.58	1.05	19.74	16.80	47.96
For-profit	1.07	24.26	18.55	56.75	1.06	23.35	15.67	56.75
Qualification Status								
Federally Qualified	1.07	24.03	14.86	51.90	1.07	23.66	13.35	51.06
Non-qualified	1.03	18.90	23.98	56.97	1.02	17.45	22.86	57.82
OWNERSHIP								
Blue Cross/Blue Shield	1.11	15.85	9.03	56.60	1.10	15.53	9.64	55.83
Commercial Insurer	1.16	41.12	20.76	66.40	1.20	39.78	16.23	66.19
National HMO Company	.89	18.73	7.25	47.68	.91	18.87	6.06	46.28
Independent	1.09	22.56	22.16	49.30	1.09	21.54	21.72	48.35
Provider-sponsored	1.04	18.56	22.70	53.42	1.01	19.36	20.09	54.98
MULTISTATE ORGANIZATION								
Yes	1.04	32.04	12.95	57.30	1.06	30.81	8.89	55.41
No	1.07	17.85	20.10	51.80	1.06	17.7[illegible]	19.42	51.98

Table 11 *(continued)* Mean Liquidity Measures by Selected Plan Characteristics, 1989[1]

	Profitable Plans >3 Years (n = 148)[2]				Unprofitable Plans >3 Years (n = 80)			
	Current Ratio	Days Premiums Receivable	Days Cash on Hand	Days Claims & IBNR Payable	Current Ratio	Days Premiums Receivable	Days Cash on Hand	Days Claims & IBNR Payable
PLANS >3 YEARS	1.14	19.44	17.77	51.76	.91	26.26	13.13	55.43
MODEL								
Staff	1.13	18.08	16.57	44.41	.79	21.29	14.61	37.13
Group	1.09	19.75	13.41	36.43	.50	17.85	.11	29.28
Network	1.15	20.04	20.93	46.48	1.18	27.94	23.95	53.09
IPA	1.15	19.59	18.44	58.86	.96	28.45	14.07	63.82
REGION								
New England	1.16	29.85	23.19	52.24	.98	36.10	15.34	50.49
Middle Atlantic	1.12	29.76	9.56	64.12	.84	18.30	4.12	61.23
South Atlantic	1.19	17.66	19.89	50.06	.80	31.67	4.71	53.23
Midwest	1.13	16.15	16.01	53.34	.91	18.87	26.09	54.67
South Central	1.11	27.06	8.07	58.62	.89	31.73	2.80	59.37
Mountain	1.19	14.08	14.54	43.51	1.25	35.36	42.42	61.93
Pacific	1.11	15.55	31.13	41.37	.95	22.89	13.40	49.38
SIZE								
0–19,999	1.16	17.23	24.06	54.01	.99	26.89	16.83	62.16
20,000–49,999	1.28	20.43	16.69	49.00	.92	31.58	19.39	65.50
50,000–99,999	1.11	21.89	19.21	52.10	.91	26.42	6.41	46.40
100,000+	1.02	17.50	14.53	53.00	.68	17.08	2.52	34.31
AGE								
4–7	1.19	21.95	19.07	54.93	.95	28.19	12.80	61.07
8–15	1.08	17.78	17.92	52.15	.89	22.56	17.12	52.61
16+	1.12	16.36	13.83	41.98	.73	21.85	9.27	31.61
TAX STATUS								
Nonprofit	1.14	18.42	18.07	51.92	.84	22.95	13.71	38.34
For-profit	1.14	20.30	17.52	51.62	.94	28.05	12.81	64.64
QUALIFICATION STATUS								
Federally Qualified	1.15	21.15	15.79	51.31	.91	28.62	8.51	50.57
Non-qualified	1.10	14.96	22.95	52.92	.89	21.38	22.72	65.54
OWNERSHIP								
Blue Cross/Blue Shield	1.18	15.03	11.53	58.15	1.00	16.18	7.15	52.78
Commercial Insurer	1.27	32.24	14.16	57.91	1.15	45.44	17.77	72.40
National HMO Company	1.13	18.40	7.98	49.96	.64	19.41	3.80	41.95
Independent	1.10	19.34	21.07	47.19	1.06	31.18	24.60	53.40
Provider-sponsored	1.14	18.53	22.58	54.07	.75	21.09	14.83	56.91
MULTISTATE ORGANIZATION								
Yes	1.16	27.82	8.84	56.24	.95	34.07	8.94	54.52
No	1.13	16.65	20.75	50.26	.88	20.49	16.22	56.11

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

Source: GHAA's Annual HMO Industry Survey.

Table 12 Mean Capital Structure Measures by Selected Plan Characteristics, 1989[1]

	All Plans (n = 229)							Plans > 3 Years (n = 199)						
	Equity Financing Ratio	Long Term Debt to Equity Ratio	Cash Flow to Debt Ratio	Tangible Asset Financing Ratio	Statutory Reserves/ Total Assets	IBNR/ Current Liabilities	Equity $ Per Member[3]	Equity Financing Ratio	Long Term Debt to Equity Ratio	Cash Flow to Debt Ratio	Tangible Asset Financing Ratio	Statutory Reserves/ Total Assets	IBNR/ Current Liabilities	Equity $ Per Member[3]
TOTAL (Mean)	.192	.336	.117	.822	.028	.347	$ 69.98	.181	.381	.141	.828	.026	.347	$ 70.01
(75th percentile)	*.30*	*.31*	*.25*	*.91*	*.03*	*.15*	*107.67*	*.30*	*.370*	*.26*	*.91*	*.03*	*.52*	*108.48*
(Median)	*.195*	*.000*	*.136*	*.806*	*.006*	*.364*	*55.22*	*.192*	*.001*	*.143*	*.809*	*.006*	*.355*	*54.10*
(25th Percentile)	*.10*	*.000*	*-.02*	*.70*	*.00*	*.03*	*21.95*	*.10*	*.000*	*.01*	*.71*	*.00*	*.15*	*22.53*
MODEL														
Staff	.183	.761	.202	.823	.023	.283	92.63	.180	.809	.215	.827	.025	.302	90.44
Group	.201	.734	.171	.811	.012	.168	73.64	.199	.756	.176	.814	.013	.174	75.42
Network	.250	.103	.148	.764	.032	.362	50.77	.215	.099	.184	.799	.033	.345	68.75
IPA	180	.219	.081	.837	.031	.392	68.69	.170	.257	.107	.838	.028	.395	64.26
REGION														
New England	.115	.433	.120	.893	.005	.347	60.45	.070	.536	.102	.940	.005	.367	25.11
Middle Atlantic	.102	.495	.042	.953	.020	.362	50.63	.065	.596	.076	.946	.019	.350	35.35
South Atlantic	.250	.479	.156	.758	.033	.347	92.42	.249	.556	.185	.761	.038	.349	91.97
Midwest	.250	.348	.145	.754	.035	.304	65.54	.233	.380	.190	.770	.031	.308	77.85
South Central	.070	-.197	.048	.930	.043	.428	23.44	.062	-.170	.044	.939	.030	.417	19.83
Mountain	.279	.350	.161	.733	.030	.399	106.13	.289	.277	.191	.724	.032	.375	111.24
Pacific	.199	.426	.117	.830	.009	.320	110.08	.201	.452	.118	.829	.009	.332	108.87
SIZE														
0–19,999	.195	.096	.013	.830	.041	.378	68.54	.147	.127	.061	.856	.036	.384	63.00
20,000–49,999	.226	.234	.181	.781	.035	.325	78.53	.226	.226	.207	.783	.036	.330	81.43
50,000–99,999	.152	.424	.135	.861	.017	.377	52.53	.156	.488	.133	.859	.014	.376	54.66
100,000+	.185	.716	.150	.826	.014	.303	78.91	.185	.719	.149	.826	.014	.300	78.22
AGE														
1–3	.266	.035	-.048	.782	.043	.350	69.79	–	–	–	–	–	–	–
4–7	.174	.171	.099	.830	.034	.381	62.86	.174	.171	.099	.830	.034	.381	62.86
8–15	.179	.324	.181	.842	.015	.345	68.13	.179	.324	.181	.842	.015	.345	68.13
16+	.208	1.265	.203	.795	.021	.236	97.14	.208	1.265	.203	.795	.021	.236	97.14
TAX STATUS														
Nonprofit	.212	.596	.157	.795	.018	.333	71.43	.202	.641	.178	.805	.017	.326	78.92
For-profit	.179	.168	.091	.840	.035	.356	69.04	.166	.194	.115	.845	.033	.362	63.51
QUALIFICATION STATUS														
Federally Qualified	.181	.392	.153	.829	.026	.354	69.92	.181	.425	.157	.831	.024	.355	69.81
Non-qualified	.215	.232	.042	.807	.033	.334	70.11	.183	.280	.103	.821	.032	.325	70.53
OWNERSHIP														
Blue Cross/Blue Shield	.186	.518	.062	.815	.029	.470	68.88	.186	.547	.083	.815	.029	.483	70.26
Commercial Insurer	.204	.181	-.019	.842	.030	.445	91.11	.191	.229	.005	.812	.030	.448	89.60
National HMO Company	.160	.506	.150	.850	.016	.278	53.07	.169	.587	.142	.843	.010	.272	55.44
Independent	.199	.390	.174	.812	.028	.320	63.63	.188	.435	.215	.823	.029	.309	71.57
Provider-sponsored	.197	.164	.136	.815	.033	.290	74.56	.172	.153	.161	.843	.026	.288	65.40
MULTISTATE ORGANIZATION														
Yes	.198	.337	.087	.828	.022	.392	64.41	.169	.417	.110	.837	.020	.383	67.99
No	.190	.336	.130	.819	.031	.328	72.39	.187	.364	.155	.824	.029	.331	70.88

Table 12 (continued) Mean Capital Structure Measures by Selected Plan Characteristics, 1989[1]

	Profitable Plans >3 Years (n = 138)[2]							Unprofitable Plans >3 Years (n = 61)						
	Equity Financing Ratio	Long Term Debt to Equity Ratio	Cash Flow to Debt Ratio	Tangible Asset Financing Ratio	Statutory Reserves/ Total Assets	IBNR/ Current Liabilities	Equity $ Per Member[3]	Equity Financing Ratio	Long Term Debt to Equity Ratio	Cash Flow to Debt Ratio	Tangible Asset Financing Ratio	Statutory Reserves/ Total Assets	IBNR/ Current Liabilities	Equity $ Per Member[3]
PLANS >3 YEARS	.229	.349	.261	.781	.026	.321	$ 88.18	.073	.444	-.129	.934	.027	.405	$ 28.92
MODEL														
Staff	.209	.727	.261	.799	.021	.303	103.70	.047	1.164	.004	.957	.042	.299	29.41
Group	.231	.543	.282	.777	.016	.179	93.37	.110	1.184	-.111	.915	.003	.162	26.71
Network	.269	.200	.254	.749	.033	.330	89.18	.060	-.139	-.016	.940	.032	.387	10.35
IPA	.224	.224	.258	.785	.028	.359	81.91	.072	.310	-.167	.934	.028	.462	32.33
REGION														
New England	.139	.400	.228	.871	.004	.409	49.38	.010	.718	-.008	1.000	.005	.330	3.88
Middle Atlantic	.193	.384	.246	.823	.013	.258	76.06	-.075	.842	-.109	1.079	.025	.450	-8.75
South Atlantic	.267	.338	.331	.740	.040	.350	96.35	.199	.975	-.203	.818	.033	.345	80.28
Midwest	.250	.350	.254	.754	.031	.298	84.67	.165	.490	-.069	.837	.031	.351	50.00
South Central	.118	-.094	.220	.882	.027	.403	57.25	-.023	-.257	-.220	1.023	.035	.437	-36.30
Mountain	.285	.362	.302	.732	.035	.315	97.46	.301	.071	-.142	.699	.023	.558	152.60
Pacific	.239	.618	.218	.794	.003	.289	130.24	.089	.121	-.180	.933	.029	.462	44.75
SIZE														
0–19,999	.222	.030	.252	.784	.042	.303	89.15	.076	.198	-.123	.925	.031	.462	37.94
20,000–49,999	.277	.302	.324	.733	.036	.307	100.00	.060	.015	-.169	.944	.039	.404	21.75
50,000–99,999	.208	.428	.245	.808	.016	.356	76.12	.033	.647	-.132	.979	.011	.423	4.08
100,000+	.194	.513	.205	.814	.013	.317	83.95	.148	1.432	-.081	.873	.020	.230	54.68
AGE														
4–7	.245	.136	.261	.758	.035	.336	88.40	.060	.216	-.164	.947	.033	.454	21.35
8–15	.196	.346	.255	.828	.016	.340	74.67	.111	.234	-.123	.901	.008	.370	40.86
16+	.258	.967	.275	.745	.020	.236	116.89	.082	2.011	.018	.920	.024	.235	46.68
TAX STATUS														
Nonprofit	.245	.540	.265	.761	.017	.328	98.30	.073	.924	-.084	.937	.016	.320	20.76
For-profit	.216	.182	.258	.798	.033	.315	79.67	.073	.213	-.153	.933	.032	.450	33.21
QUALIFICATION STATUS														
Federally Qualified	.228	.385	.268	.784	.024	.343	89.68	.072	.510	-.099	.937	.024	.384	24.05
Non-qualified	.232	.259	.243	.773	.031	.264	84.35	.077	.314	-.201	.927	.032	.457	40.57
OWNERSHIP														
Blue Cross/Blue Shield	.214	.260	.294	.786	.028	.458	93.10	.146	.905	-.218	.856	.031	.518	37.63
Commercial Insurer	.254	.237	.226	.747	.028	.413	115.97	.144	.224	-.157	.860	.032	.475	70.26
National HMO Company	.230	.471	.274	.777	.014	.293	79.19	.053	.741	-.108	.967	.003	.231	10.58
Independent	.220	.414	.266	.794	.028	.292	84.59	.053	.525	.000	.947	.031	.381	17.28
Provider-sponsored	.242	.265	.242	.774	.026	.274	86.37	-.079	-.116	-.135	1.093	.027	.338	-10.82
MULTISTATE ORGANIZATION														
Yes	.237	.368	.266	.767	.018	.391	90.52	.075	.473	-.108	.934	.023	.371	36.45
No	.227	.342	.259	.786	.028	.297	87.38	.072	.421	-.144	.934	.029	.429	23.70

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.
3. Includes 20 plans with negative equity. In prior editions, equity was reported per member per month rather than per member.

Source: GHAA's Annual HMO Industry Survey.

Table 13 Mean Activity Ratios by Selected Plan Characteristics, 1989[1]

	All Plans (n = 260)			Plans >3 Years (n = 230)		
	Premium Receivable Turnover	Current Asset Turnover	Total Asset Turnover	Premium Receivable Turnover	Current Asset Turnover	Total Asset Turnover
TOTAL	.76	5.77	3.84	.72	5.90	3.82
(75th percentile)	*1.07*	*6.30*	*4.47*	*1.00*	*6.37*	*4.48*
(Median)	*.49*	*4.57*	*3.60*	*.49*	*4.62*	*3.61*
(25th percentile)	*.26*	*3.35*	*2.62*	*.26*	*3.45*	*2.65*
MODEL						
Staff	.69	5.35	2.97	.65	5.52	3.03
Group	.59	10.12	4.09	.61	10.06	3.91
Network	.86	5.28	4.11	.74	5.16	4.08
IPA	.79	5.04	3.90	.75	5.14	3.92
REGION						
New England	1.10	5.35	3.81	1.07	5.88	4.05
Middle Atlantic	.96	5.79	3.98	.79	6.42	4.28
South Atlantic	.88	5.61	3.55	.76	5.78	3.53
Midwest	.53	5.57	3.99	.55	5.31	3.73
South Central	.99	5.90	4.05	.99	6.17	4.15
Mountain	.62	5.39	4.17	.62	5.35	4.10
Pacific	.59	6.78	3.35	.58	6.95	3.41
SIZE						
0–19,999	.88	4.80	3.90	.76	5.05	4.02
20,000–49,999	.77	5.30	3.82	.77	5.25	3.74
50,000–99,999	.75	5.86	4.16	.76	5.81	4.08
100,000+	.59	7.47	3.47	.57	7.49	3.47
AGE						
1–3	1.08	4.79	3.95	—	—	—
4–7	.82	5.36	4.06	.82	5.36	4.06
8–15	.61	5.94	3.86	.61	5.94	3.86
16+	.58	7.65	2.94	.58	7.65	2.94
TAX STATUS						
Nonprofit	.68	6.64	3.75	.64	6.74	3.70
For-profit	.81	5.17	3.90	.77	5.25	3.92
QUALIFICATION STATUS						
Federally Qualified	.79	5.85	3.73	.78	5.95	3.75
Non-qualified	.70	5.61	4.04	.58	5.78	3.98
OWNERSHIP						
Blue Cross/Blue Shield	.53	4.98	3.84	.52	5.08	3.88
Commercial Insurer	1.34	3.61	2.97	1.28	3.61	2.92
National HMO Company	.61	8.58	3.51	.61	8.65	3.37
Independent	.79	5.45	3.78	.70	5.75	3.92
Provider-sponsored	.65	6.03	4.49	.65	5.97	4.41
MULTISTATE ORGANIZATION						
Yes	1.09	6.03	3.32	1.00	6.31	3.32
No	.61	5.65	4.07	.59	5.71	4.05

Table 13 *(continued)* Mean Activity Ratios by Selected Plan Characteristics, 1989[1]

	Profitable Plans > 3 Years (n = 153)[2]			Unprofitable Plans > 3 Years (n = 77)		
	Premium Receivable Turnover	Current Asset Turnover	Total Asset Turnover	Premium Receivable Turnover	Current Asset Turnover	Total Asset Turnover
PLANS >3 YEARS	.63	5.30	3.76	.88	7.09	3.94
MODEL						
Staff	.64	5.00	2.89	.70	7.63	3.57
Group	.62	6.92	3.96	.58	16.35	3.80
Network	.66	5.27	4.04	.92	4.91	4.18
IPA	.63	4.97	3.89	.96	5.41	3.97
REGION						
New England	.98	4.91	3.45	1.19	7.06	4.79
Middle Atlantic	.98	4.30	3.26	.60	8.55	5.31
South Atlantic	.60	5.08	3.73	1.07	7.17	3.12
Midwest	.52	5.26	3.76	.65	5.48	3.63
South Central	.89	5.05	4.34	1.11	7.59	3.91
Mountain	.46	6.09	4.43	1.00	3.57	3.30
Pacific	.50	6.15	3.50	.75	8.54	3.24
SIZE						
0–19,999	.56	5.11	4.02	.92	4.99	4.03
20,000–49,999	.67	4.84	3.72	1.04	6.27	3.79
50,000–99,999	.72	5.12	3.85	.87	7.56	4.67
100,000+	.58	5.99	3.57	.56	12.68	3.09
AGE						
4–7	.72	4.80	3.99	.95	6.10	4.16
8–15	.57	5.50	3.80	.75	7.77	4.09
16+	.52	6.21	3.05	.72	10.92	2.69
TAX STATUS						
Nonprofit	.60	5.32	3.47	.75	10.38	4.29
For-profit	.66	5.28	4.03	.95	5.21	3.74
QUALIFICATION STATUS						
Federally Qualified	.69	5.11	3.69	.95	7.65	3.88
Non-qualified	.50	5.74	3.94	.73	5.85	4.07
OWNERSHIP						
Blue Cross/Blue Shield	.49	4.34	3.38	.55	6.13	4.58
Commercial Insurer	1.06	3.81	3.30	1.43	3.47	2.65
National HMO Company	.59	5.91	3.54	.64	12.25	3.14
Independent	.63	5.73	3.85	1.03	5.82	4.26
Provider-sponsored	.62	5.29	4.08	.73	7.71	5.24
MULTISTATE ORGANIZATION						
Yes	.90	5.06	3.40	1.11	7.71	3.24
No	.55	5.37	3.88	.70	6.60	4.49

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

Source: GHAA's Annual HMO Industry Survey.

Table 14 Mean Profitability Ratios by Selected Plan Characteristics, 1989[1]

	All Plans (n = 248)					Plans >3 Years (n = 220)				
	Healthcare Expense Ratio	Administrative Expense Ratio	Gross Profit Margin	Net Profit Margin	Operating Profit Margin	Healthcare Expense Ratio	Administrative Expense Ratio	Gross Profit Margin	Net Profit Margin	Operating Profit Margin
TOTAL	.890	.133	-.001	-.001	.000	.891	.128	.003	.002	.004
(75th percentile)	*.927*	*.161*	*.034*	*.032*	*.038*	*.927*	*.155*	*.034*	*.032*	*.040*
(Median)	*.886*	*.124*	*.012*	*.011*	*.011*	*.886*	*.120*	*.014*	*.014*	*.013*
(25th percentile)	*.851*	*.100*	*-.026*	*-.026*	*-.030*	*.852*	*.097*	*-.018*	*-.018*	*-.020*
MODEL										
Staff	.902	.117	.011	.011	.031	.903	.116	.012	.012	.032
Group	.924	.110	-.012	-.013	.008	.924	.111	-.013	-.013	.009
Network	.881	.135	.009	.006	.000	.877	.132	.012	.009	.005
IPA	.883	.140	-.003	-.003	-.008	.884	.134	.001	.002	-.005
REGION										
New England	.887	.125	.004	.003	.016	.903	.116	-.005	-.006	.012
Middle Atlantic	.899	.137	-.017	-.015	-.007	.911	.121	-.015	-.012	-.002
South Atlantic	.884	.139	-.001	-.005	.003	.874	.144	.004	.002	.010
Midwest	.893	.126	.006	.003	-.001	.890	.121	.014	.011	.006
South Central	.904	.138	-.018	-.016	-.024	.910	.132	-.019	-.017	-.027
Mountain	.859	.142	.020	.018	.018	.855	.142	.025	.023	.023
Pacific	.889	.129	.004	.006	.012	.891	.129	.002	.004	.010
SIZE										
0–19,999	.899	.151	-.022	-.020	-.025	.906	.144	-.019	-.016	-.024
20,000–49,999	.875	.139	.005	.005	.005	.872	.136	.010	.010	.012
50,000–99,999	.889	.120	.010	.009	.015	.889	.118	.010	.009	.016
100,000+	.901	.111	.009	.005	.013	.902	.111	.008	.005	.012
AGE										
1–3	.884	.165	-.027	-.029	-.027	–	–	–	–	–
4–7	.887	.139	-.006	-.005	-.008	.887	.139	-.006	-.005	-.008
8–15	.891	.117	.015	.013	.016	.891	.117	.015	.013	.016
16+	.905	.114	.008	.008	.020	.905	.114	.008	.008	.020
TAX STATUS										
Nonprofit	.904	.118	.003	.003	.007	.907	.115	.005	.005	.008
For-profit	.881	.142	-.004	-.004	-.004	.880	.138	.001	.000	.000
QUALIFICATION STATUS										
Federally Qualified	.891	.129	.004	.004	.006	.894	.125	.004	.004	.007
Non-qualified	.889	.140	-.010	-.012	-.010	.885	.136	-.001	-.003	-.003
OWNERSHIP										
Blue Cross/Blue Shield	.891	.135	-.004	-.005	-.002	.893	.128	.001	.001	.003
Commercial Insurer	.897	.158	-.032	-.022	-.028	.894	.161	-.032	-.019	-.027
National HMO Company	.908	.120	-.009	-.012	-.002	.911	.120	-.011	-.014	-.005
Independent	.886	.128	.012	.010	.014	.886	.124	.017	.015	.020
Provider-sponsored	.883	.131	.005	.002	.000	.883	.124	.009	.007	.004
MULTISTATE ORGANIZATION										
Yes	.902	.135	-.015	-.013	-.007	.902	.134	-.014	-.011	-.006
No	.885	.132	.006	.004	.003	.886	.126	.010	.008	.008

Table 14 (continued) Mean Profitability Ratios by Selected Plan Characteristics, 1989[1]

	Profitable Plans >3 Years (n = 145)[2]					Unprofitable Plans >3 Years (n = 75)				
	Healthcare Expense Ratio	Administrative Expense Ratio	Gross Profit Margin	Net Profit Margin	Operating Profit Margin	Healthcare Expense Ratio	Administrative Expense Ratio	Gross Profit Margin	Net Profit Margin	Operating Profit Margin
PLANS >3 YEARS	.864	.123	.037	.033	.035	.944	.139	-.064	-.058	-.057
MODEL										
Staff	.874	.117	.034	.033	.060	1.000	.114	-.063	-.060	-.062
Group	.895	.108	.025	.023	.036	.981	.116	-.087	-.087	-.047
Network	.867	.122	.036	.032	.024	.900	.156	-.040	-.042	-.038
IPA	.852	.129	.041	.036	.030	.937	.144	-.063	-.055	-.061
REGION										
New England	.878	.110	.030	.027	.036	.924	.120	-.036	-.035	-.008
Middle Atlantic	.874	.114	.030	.029	.045	.949	.128	-.060	-.054	-.050
South Atlantic	.848	.135	.042	.037	.043	.932	.164	-.081	-.079	-.067
Midwest	.876	.115	.036	.032	.025	.934	.141	-.052	-.052	-.053
South Central	.857	.125	.038	.033	.030	.977	.141	-.090	-.081	-.098
Mountain	.836	.148	.041	.038	.039	*	*	*	*	*
Pacific	.863	.123	.037	.033	.042	.948	.140	-.067	-.052	-.054
SIZE										
0–19,999	.863	.139	.041	.038	.025	.942	.149	-.070	-.063	-.066
20,000–49,999	.849	.129	.041	.037	.042	.930	.154	-.066	-.060	-.067
50,000–99,999	.867	.122	.032	.030	.034	.946	.109	-.046	-.044	-.032
100,000+	.879	.106	.034	.028	.033	.966	.126	-.064	-.062	-.047
AGE										
4–7	.850	.132	.039	.036	.034	.940	.148	-.070	-.063	-.067
8–15	.879	.112	.035	.031	.032	.936	.135	-.057	-.054	-.042
16+	.871	.119	.033	.031	.044	.975	.104	-.046	-.042	-.028
TAX STATUS										
Nonprofit	.877	.118	.034	.034	.032	.975	.107	-.062	-.062	-.048
For-profit	.852	.127	.039	.033	.037	.926	.157	-.065	-.056	-.062
QUALIFICATION STATUS										
Federally Qualified	.868	.120	.037	.034	.035	.946	.136	-.061	-.054	-.050
Non-qualified	.855	.131	.036	.031	.034	.940	.145	-.070	-.067	-.071
OWNERSHIP										
Blue Cross/Blue Shield	.857	.130	.041	.039	.042	.946	.125	-.058	-.056	-.054
Commercial Insurer	.862	.126	.032	.027	.036	.921	.190	-.082	-.055	-.077
National HMO Company	.878	.101	.045	.040	.036	.950	.142	-.078	-.078	-.053
Independent	.864	.128	.034	.031	.037	.968	.109	-.046	-.047	-.044
Provider-sponsored	.861	.123	.036	.032	.028	.938	.127	-.054	-.055	-.053
MULTISTATE ORGANIZATION										
Yes	.869	.113	.039	.034	.041	.942	.159	-.078	-.065	-.062
No	.862	.127	.036	.033	.033	.946	.125	-.054	-.054	-.052

Notes:

1. Excludes plans with 1,000 enrollees or fewer and data points greater than 3 standard deviations from the mean.
2. "Profitable" is defined as reporting income before taxes and extraordinary expenses (i.e., gross income) greater than or equal to zero.

* Data are not shown where cell size is less than 4 plans.

Source: GHAA's Annual HMO Industry Survey.

APPENDICES

Table A-1 Response Rates to GHAA's Fourth Annual Industry Survey by Selected Plan Characteristics, 1989–1990.[1]

	Response Rate (%)							Enrollment Response Rate		
								%Response		
Selected Characteristics	Number Surveyed[2]	Number Responding	All Plans	>3	≤3	Total Enrollment	Respondent Enrollment	All plans	>3	≤3
TOTAL	552	372	67.4	70.2	52.8	34,556,700	27,966,705	80.9	82.0	54.5
MODEL[3]										
Staff	60	45	75.0	76.8	50.0	4,381,373	3,997,253	91.2	91.5	72.4
Group	77	59	76.6	78.4	33.3	10,365,008	10,007,192	96.5	96.8	33.2
Network	82	58	70.7	72.3	64.7	5,071,842	4,196,051	82.7	83.9	50.2
IPA	333	210	63.1	66.0	50.8	14,738,477	9,766,209	66.3	67.1	55.2
REGION										
New England	39	28	71.8	77.8	58.3	2,552,788	2,264,223	88.7	91.5	47.4
Middle Atlantic	68	47	69.1	69.8	66.7	4,763,421	3,128,515	65.7	66.0	60.9
Midwest	170	114	67.1	67.6	63.6	8,296,128	6,348,207	76.5	77.0	64.8
South Atlantic	90	58	64.4	68.0	46.7	3,806,271	2,968,454	78.0	78.6	66.5
South Central	69	47	68.1	72.1	37.5	2,548,788	2,014,687	79.0	82.4	25.3
Mountain	41	30	73.2	76.5	57.1	2,124,892	1,840,228	86.6	87.9	63.3
Pacific	75	48	64.0	70.8	20.0	10,464,412	9,402,391	89.9	90.4	11.9
SIZE										
0–19,999	213	127	59.6	62.8	52.3	2,135,756	1,308,751	61.3	63.3	54.7
20,000–49,999	171	109	63.7	65.1	54.5	5,376,171	3,466,296	64.5	65.8	54.9
50,000–99,999	79	62	78.5	79.2	50.0	5,653,675	4,496,105	79.5	80.1	51.5
100,000+	68	57	83.8	83.8	–	9,578,641	8,220,545	85.8	85.8	–
250,000+	21	17	81.0	81.0	–	11,812,457	10,475,008	88.7	88.7	–
PLAN AGE										
2–3	89	47	52.8	–	52.8	1,299,303	708,400	54.5	–	54.5
4–7	272	177	65.1	65.1	–	9,188,324	6,215,919	67.7	67.7	–
8–15	125	96	76.8	76.8	–	11,642,761	9,394,762	80.7	80.7	–
16–25	49	38	77.6	77.6	–	4,729,897	3,986,209	84.3	84.3	–
26+	17	14	82.4	82.4	–	7,696,415	7,661,415	99.5	99.5	–
GHAA MEMBERS										
Member	274	212	77.4	78.8	68.4	22,686,123	20,489,589	90.3	90.7	71.1
Non-member	278	160	57.6	61.2	41.2	11,870,577	7,477,116	63.0	64.3	45.3
TAX STATUS										
Nonprofit	193	136	70.5	73.5	47.8	18,654,438	16,326,781	87.5	88.0	52.4
For-profit	359	236	65.7	68.3	54.5	15,902,262	11,639,924	73.2	74.5	55.0
QUALIFICATION STATUS										
Federally Qualified	304	231	76.0	76.8	65.0	26,366,682	22,497,622	85.3	85.6	36.6
Non-qualified	248	141	56.9	59.8	68.1	8,190,018	5,469,083	66.8	69.1	88.1

Notes:

1. This analysis is based on information provided by plans for *GHAA's National Directory of HMOs*, 1990 ed. Enrollment and plan characteristics are as of December 31, 1989.
2. Plans surveyed include all HMOs operational as of January 1, 1990.
3. Represents predominate model type as designated by plan.

RESPONDENTS TO THE GHAA ANNUAL HMO INDUSTRY SURVEY

AV-MED Health Plan (Miami, FL)
AmeriMed (Burbank, CA)
American Health Care Providers / American HMO (Flossmoor, IL)
American Health Network HMO of Florida (Jacksonville, FL)
Arizona Health Plan, Inc. / Phoenix IPA (Phoenix, AZ)
Baptist Medical System HMO, Inc. (Little Rock, AR)
Bay Pacific Health Plan (San Bruno, CA)
Bay State Health Care, Inc. (Cambridge, MA)
Blue Care Network - Health Central (Lansing, MI)
Blue Care Network of Southeast Michigan (Southfield, MI)
Blue Care Network of East Michigan (Saginaw, MI)
Blue Care Network, Great Lakes (Grand Rapids, MI)
Blue Choice (St. Louis, MO)
BlueLincs HMO (Tulsa, OK)
CAC-Ramsay (Coral Gables, FL)
CIGNA Health Network Inc. (Dallas, TX)
CIGNA Health Plan MidAtlantic (Columbia, MD)
CIGNA Healthplan of California, Inc. (Glendale, CA)
CIGNA Healthplan of Connecticut (East Hartford, CT)
CIGNA Healthplan of Massachusetts, Inc. (Springfield, MA)
CIGNA Healthplan of Arizona - Phoenix (Phoenix, AZ)
CIGNA Healthplan of Arizona, Inc. - Tucson (Tucson, AZ)
CIGNA Healthplan of Colorado, Inc. (Denver, CO)
CIGNA Healthplan of Florida, Inc. - Maitland (Maitland, FL)
CIGNA Healthplan of Florida, Inc. - Tampa (Tampa, FL)
CIGNA Healthplan of Illinois (Des Plaines, IL)
CIGNA Healthplan of Kansas City (Kansas City, MO)
CIGNA Healthplan of Louisiana, Inc. (Baton Rouge, LA)
CIGNA Healthplan of North Louisiana (Shreveport, LA)
CIGNA Healthplan of Northern California (Oakland, CA)
CIGNA Healthplan of Northern New Jersey, Inc. (Paramus, NJ)
CIGNA Healthplan of Ohio, Inc. Cleveland (Cleveland, OH)
CIGNA Healthplan of Ohio, Inc. Columbus (Columbus, OH)
CIGNA Healthplan of Southern Florida (Miami Lakes, FL)
CIGNA Healthplan of St. Louis (Clayton, MO)
CIGNA Healthplan of Texas (Irving, TX)
CIGNA Healthplan of Texas, Inc. - Houston Division (Houston, TX)
CIGNA Healthplan of Washington Inc. (Seattle, WA)
CIGNA Private Practice Plan (Glendale, CA)
CaliforniaCare (Woodland Hills, CA)
Capital District Physicians' Health Plan (Albany, NY)

Capitol Health Care (Salem, OR)
Care Choices Health Plans / Mercy Alternative (Farmington Hill, MI)
CareAmerica Health Plans, Inc. (Chatsworth, CA)
CareChoice - Chattanooga (Chattanooga, TN)
Carlecare (Urbana, IL)
Carolina Physicians Health Plan, Inc. (Raleigh, NC)
Central Massachusetts Health Care, Inc. (Worcester, MA)
Central Medical Health Plan (Pittsburgh, PA)
Central Minnesota Group Health Plan (St. Cloud, MN)
Chicago HMO Ltd. (Chicago, IL)
ChoiceCare (Cincinnati, OH)
ChoiceCare - Long Island (Uniondale, NY)
Coastal Bend Health Plan (Corpus Christi, TX)
Columbia Medical Plan, Inc. (Columbia, MD)
Community Blue, HMO of Blue Cross of Western New York, Inc. (Buffalo, NY)
Community Choice Health Plan, Inc. (Two Rivers, WI)
Community Health Care Plan (New Haven, CT)
Community Health Group (Chula Vista, CA)
Community Health Plan (W. Springfield, MA)
Community Health Plan (Latham, NY)
Community Health Plan (Cincinnati, OH)
Community Health Plan (Burlington, VT)
Community Health Plan - L.A. County Dept. of Health Services (Los Angeles, CA)
Community Health Plan of the Mary Imogene Bassett Hospital (Cooperstown, NY)
Companion Health Care Corp. (Columbia, SC)
Compcare Health Services Insurance Corporation (Milwaukee, WI)
Complete Health, Inc. (Birmingham, AL)
Comprecare, Inc. (Aurora, CO)
Comprehensive Health Services Inc. (Detroit, MI)
ConnectiCare, Inc. (Farmington, CT)
Constitution Health Network (Meriden, CT)
Contra Costa Health Plan (Martinez, CA)
D.C. Chartered Health Plan, Inc. (Washington, DC)
DAKOTACARE (Sioux Falls, SD)
DeanCare HMO (Middleton, WI)
Delaware Valley HMO (Concordville, PA)
Delmarva Health Care Plan, Inc. (Easton, MD)
Deseret Healthcare (Salt Lake City, UT)
Dreyer HMO (Aurora, IL)
EQUICOR Health Plan (Chicago, IL)
EQUICOR Health Plan (Overland Park, KS)
EQUICOR Health Plan (Oklahoma City, OK)
EQUICOR Health Plan (Memphis, TN)
EQUICOR Health Plan (Brentwood, TN)
EQUICOR Health Plan Of Utah, Inc. (Salt Lake City, UT)
EQUICOR Health Plan of California, Inc. (San Diego, CA)
EQUICOR Health Plan of Florida Inc. (St. Petersburg, FL)

EQUICOR Health Plan, Inc. (Wichita, KS)
EQUICOR Health Plan, Inc. (Salina, KS)
EQUICOR Health Plan, Inc. (Raleigh, NC)
EQUICOR Health Plan, Inc. (Houston, TX)
EQUICOR Health Plan, Inc. (Glen Allen, VA)
EQUICOR Health Plan, Inc. (Virginia Beach, VA)
Eau Claire Health Protection Plan (Wausau, WI)
Educators Health Care, Inc. (Murray, UT)
Employees Choice Health Option (Salt Lake City, UT)
Employer's Health Care Plan (Green Bay, WI)
Exclusive HealthCare, Inc. (Omaha, NE)
FHP Of New Mexico, Inc. (Albuquerque, NM)
FHP, Inc. (Tempe, AZ)
FHP, Inc. (Cerritos, CA)
FHP, Inc. (Tamuning, GU)
FHP, Inc. (Utah Region) (Salt Lake City, UT)
FIRSTSOURCE, Inc. (Albuquerque, NM)
Fallon Community Health Plan (West Boylston, MA)
Family Health Plan (Des Moines, IA)
Family Health Plan (Toledo, OH)
Family Health Plan Cooperative (Elm Grove, WI)
Family Health Plan Corporation (Newton, KS)
Family Health Plan, Inc. (Miami Lakes, FL)
Florida First Health Plan (Winter Haven, FL)
Florida Health Care Plan, Inc. (Daytona Beach, FL)
Foundation Health Plan (Rancho Cordova, CA)
Foundation Health Plan (FHP) (Endwell, NY)
Free State Health Plan, Inc. (Timonium, MD)
Freedom Health Care (Wayne, PA)
Garden State Health Plan (Trenton, NJ)
Geisinger Health Plan (Danville, PA)
George Washington University Health Plan, Inc. (Washington, DC)
Golden Bay Health Plan (San Francisco, CA)
Grand Valley Health Plan (Grand Rapids, MI)
Greater Amarillo Health Plan Inc. (Amarillo, TX)
Greater Atlantic Health Service, Inc. (Philadelphia, PA)
Greater Wisconsin Rapids Health Protection Plan (Wausau, WI)
Green Bay Health Protection Plan (Wausau, WI)
Group Health (Rochester, NY)
Group Health Association, Inc. (Washington, DC)
Group Health Cooperative of Eau Claire (Eau Claire, WI)
Group Health Cooperative of Puget Sound (Seattle, WA)
Group Health Cooperative of South Central Wisconsin (Madison, WI)
Group Health Northwest (Spokane, WA)
Group Health Plan, Inc. (St. Louis, [illegible])
Group Health, Inc. (Minneapolis, MN)
Guam Memorial Health Plan (GMHP) Agana, GU)

Gulf South Health Plans, Inc. (Baton Rouge, LA)
HEALS, Personal Care Physician Health Plan (Emeryville, CA)
HEALTH OPTIONS, INC. (Jacksonville, FL)
HIP Network of Florida, Inc. (Ft. Lauderdale, FL)
HIP of New Jersey-A Division of HIP / Rutgers Health Plan (Robbinsville, NJ)
HMO America - Indiana, Inc. (Chicago, IL)
HMO Arizona (Phoenix, AZ)
HMO Arkansas, Inc. (Little Rock, AR)
HMO Colorado (Denver, CO)
HMO Georgia (Atlanta, GA)
HMO Health Ohio / BC & BS of Ohio (Cleveland, OH)
HMO Iowa (Des Moines, IA)
HMO Kansas, Inc. (Topeka, KS)
HMO Kentucky, Inc. (Louisville, KY)
HMO Minnesota (St. Paul, MN)
HMO Nebraska, Inc. (Omaha, NE)
HMO Rhode Island (Providence, RI)
HMO Virginia, Inc. (Richmond, VA)
HMO Washington (Seattle, WA)
HMO of Northeastern PA (Wilkes-Barre, PA)
HMO of Wisconsin Insurance Corporation (Prairie du Sac, WI)
Harris Health Plan (Fort Worth, TX)
Harvard Community Health Plan (Brookline, MA)
Hawaii Medical Services Assn / Community Health Program (Honolulu, HI)
Health Alliance Plan of Michigan (Detroit, MI)
Health Care Plan, Inc. (Buffalo, NY)
Health Insurance Plan of Greater New York (New York, NY)
Health Maintenance Plan (Cincinnati, OH)
Health Maintenance of Indiana / Key Health Plan (Indianapolis, IN)
Health Net (Van Nuys, CA)
Health Network of Colorado Springs, Inc. (Colorado Spring, CO)
Health New England (Springfield, MA)
Health Plan Hawaii (Honolulu, HI)
Health Plan of Nevada, Inc. - Las Vegas (Las Vegas, NV)
Health Plan of the Upper Ohio Valley, Inc. (St. Clairsville, OH)
Health Power of Columbus / Family HealthNet of Ohio (Columbus, OH)
Health Power of Dayton, Inc. (Columbus, OH)
Health Services Medical Corp. Slocum Dickson Medical Network (Baldwinsville, NY)
Health Services Medical Corp. (Baldwinsville, NY)
HealthAmerica Corporation of Pennsylvania (Pittsburgh, PA)
HealthAmerica of Pennsylvania, Inc. (Camp Hill, PA)
HealthCare, Inc. (North Haven, CT)
HealthChicago, Inc. (Lisle, IL)
HealthGuard Services, Inc. / SelectCare (Eugene, OR)
HealthGuard of Lancaster Inc. (Lancaster, PA)
HealthKeepers of Virginia, Inc. (Richmond, VA)
HealthOhio, Inc. (Marion, OH)

HealthPlus (Seattle, WA)
HealthPlus, Inc. (Riverdale, MD)
HealthWays, Inc. (Iselin, NJ)
HealthWise (Lexington, KY)
HealthWise (Salt Lake City, UT)
Healthcare Delaware (Wilmington, DE)
Healthshield (Poughkeepsie, NY)
Healthsource Maine (Yarmouth, ME)
Healthsource South Carolina (Charleston, SC)
Heart of America HMO (Rugby, ND)
Heritage Health Plan of South Florida (Miami, FL)
Heritage National Health Plan, Inc. (Davenport, IA)
HomeTown Hospital Health Plan (Massillon, OH)
Humana Health Care Plan - Lexington (Lexington, KY)
Humana Health Plan Inc. (Louisville) (Louisville, KY)
Humana Health Plan of TX, Inc. - Humana HP Corpus Christi (Corpus Christi, TX)
Humana Medical Plan Inc. (South Florida) (Miami, FL)
IHC Care, Inc. (Salt Lake City, UT)
Illinois Masonic Community Health Plan (Chicago, IL)
Independent Health (Tarrytown, NY)
Independent Health Association (Buffalo, NY)
Independent Health of Pennsylvania (Erie, PA)
Independent Prepaid Health Plan (Baldwinsville, NY)
Intergroup Prepaid Health Services of Arizona, Inc. (Tucson, AZ)
JMH Health Plan (Miami, FL)
Johns Hopkins Health Plan (Baltimore, MD)
Kaiser Foundation Health Plan of Colorado (Denver, CO)
Kaiser Foundation Health Plan of Georgia, Inc. (Atlanta, GA)
Kaiser Foundation Health Plan of Kansas City, Inc. (Shawnee Mission, KS)
Kaiser Foundation Health Plan of Mid-Atlantic States, Inc. (Washington, DC)
Kaiser Foundation Health Plan of North Carolina (Raleigh, NC)
Kaiser Foundation Health Plan of Ohio (Cleveland, OH)
Kaiser Foundation Health Plan of Texas (Dallas, TX)
Kaiser Foundation Health Plan of the Northwest (Portland, OR)
Kaiser Foundation Health Plan, Inc. - Hawaii Region (Honolulu, HI)
Kaiser Foundation Health Plan, Inc. - N. California Region (Oakland, CA)
Kaiser Foundation Health Plan, Inc. - Southern CA Region (Pasadena, CA)
Kaiser Foundation Health Plan, Inc. - Northeast Region (Hartford, CT)
Keystone Health Plan East, Inc. (Bala-Cynwyd, PA)
Keystone Health Plan West, Inc. (Pittsburgh, PA)
Lake Shore HMO (Holland, MI)
Licking Memorial Hospital Health Plan (Newark, OH)
Lincoln National Health Plan (Woodland Hills, CA)
Lincoln National Health Plan (Fort Wayne, IN)
Lincoln National Health Plan (Overland Park, KS)
Lincoln National Health Plan (South Portland, ME)
Lincoln National Health Plan (Bethesda, MD)
Lincoln National Health Plan (St. Louis, MO)

Lincoln National Health Plan, Inc. (Phoenix, AZ)
Lincoln National Health Plan, Inc. (Boise, ID)
Lincoln National Health Plan, Inc. (Cincinnati, OH)
Lovelace Health Plan, Inc. (Albuquerque, NM)
M-Care (Ann Arbor, MI)
M.D. Health Plan (New Haven, CT)
M.D. Individual Practice Association, Inc. (Rockville, MD)
MIT Health Plan (Cambridge, MA)
MagnaCare Health Plan (Cincinnati, OH)
Matthew Thornton Health Plan (Nashua, NH)
Maxicare (Southern California) (Los Angeles, CA)
Maxicare North Carolina, Inc. (Charlotte, NC)
Maxicare South Carolina, Inc. (Greenville, SC)
Med Connect HMO of Illinois Inc. (Hinsdale, IL)
MedCare (Maywood, IL)
Medical Associates Health Plan, Inc. (Dubuque, IA)
Medical Center Health Plan (Pensacola, FL)
Medical West Community Health Plan, Inc. (Framingham, MA)
Medigroup, Inc. (Cranford, NJ)
Mercy Health Plan (Philadelphia, PA)
Metropolitan Health Plan / HMO (New York, NY)
Michael Reese Health Plan,Inc. (Chicago, IL)
Mid-Ohio Health Care Plan / Health One (Columbus, OH)
Mobile Health Plan (Mobile, AL)
Mohawk Valley Physicians Health Plan (Schenectady, NY)
NWNL Health Network, Inc. (St. Paul, MN)
National Med (Modesto, CA)
Neighborhood Health Plan Inc. (Dorchester, MA)
Network Health Plan (Mercer Island, WA)
North Central Health Protection Plan (Wausau, WI)
North Med HMO, Inc. (Traverse City, MI)
Ochsner Health Plan of New Orleans (Metairie, LA)
OmniCare Health Plan (Detroit, MI)
Optima Health Plan (Norfolk, VA)
PACC Health Plans, Inc. (Clackamas, OR)
PCA Health Plan of Texas (Austin, TX)
PCA Health Plans (Sacramento, CA)
PHN-HMO, Inc. (Baltimore, MD)
PacifiCare of California (Cypress, CA)
PacifiCare of Texas, Inc. (San Antonio, TX)
Pacific Health (Seattle, WA)
Paramount Health Care (Toledo, OH)
Patient's Choice, Inc. (Syracuse, NY)
Peak Health Plan of Colorado (Denver, CO)
Personal Physician Care of Ohio, Inc. (Cleveland, OH)
PersonalCare Insurance of Illinois, Inc. (Champaign, IL)
Physician and Patient Association, Inc. (Houston, TX)
Physicians Health Network (Evansville, IN)

Physicians Health Plan of Mid-Michigan (Lansing, MI)
Physicians Health Plan of Minnesota (Minneapolis, MN)
Physicians Health Plan of North Carolina, Inc. (Greensboro, NC)
Physicians Health Plan of Northern Indiana (Fort Wayne, IN)
Physicians Health Plan of Ohio, Inc. (Columbus, OH)
Physicians Health Plan of South Carolina (Columbia, SC)
Physicians Health Plan of Utah (Salt Lake City, UT)
Physicians Health Plan of West Michigan (Muskegon, MI)
Physicians Health Service of Connecticut, Inc. (Trumbull, CT)
Physicians Health Services (HMO), Inc. (Evansville, IN)
Physicians Health Services of New York, Inc. (White Plains, NY)
Physicians Plus HMO (Madison, WI)
Pilgrim Health Care, Inc. (Norwell, MA)
Premier Health Plan (Philadelphia, PA)
PrimeCare Health Plan, Inc. (Milwaukee, WI)
Principal HealthCare of Nebraska, Inc. (Omaha, NE)
PruCare of Washington, DC (Bethesda, MD)
Prudential Health Care Plan Inc. - PruCare of Connecticut (Norwalk, CT)
Prudential Health Care Plan Inc. - PruCare of New Jersey (Parsippany, NJ)
Prudential Health Care Plan Inc. - PruCare of New York (Hauppauge, NY)
Prudential Health Care Plan Inc. - PruCare of Philadelphia (Horsham, PA)
Prudential Health Care Plan Inc. - PruCare of South FL. (Ft. Lauderdale, FL)
Prudential Health Care Plan - PruCare Of Tampa Bay (Tampa, FL)
Prudential Health Care Plan, Inc. - PruCare of Atlanta (Atlanta, GA)
Prudential Health Care Plan, Inc. - PruCare of Austin (Austin, TX)
Prudential Health Care Plan, Inc. - PruCare of Central Ohio (Columbus, OH)
Prudential Health Care Plan, Inc. - PruCare of Charlotte (Charlotte, NC)
Prudential Health Care Plan, Inc. - PruCare of Cincinnati (Cincinnati, OH)
Prudential Health Care Plan, Inc. - PruCare of Houston (Houston, TX)
Prudential Health Care Plan, Inc. - PruCare of Illinois (Rosemont, IL)
Prudential Health Care Plan, Inc. - PruCare of Kansas City (Kansas City, MO)
Prudential Health Care Plan, Inc. - PruCare of Memphis (Memphis, TN)
Prudential Health Care Plan, Inc. - PruCare of Nashville (Nashville, TN)
Prudential Health Care Plan, Inc. - PruCare of North Texas (Dallas, TX)
Prudential Health Care Plan, Inc. - PruCare of Ok. City (Oklahoma City, OK)
Prudential Health Care Plan, Inc. - PruCare of Orlando (Maitland, FL)
Prudential Health Care Plan, Inc. - PruCare of Richmond (Richmond, VA)
Prudential Health Care Plan, Inc. - PruCare of San Antonio (San Antonio, TX)
Prudential Health Care Plan, Inc. - PruCare of St. Louis (Creve Coeur, MO)
Prudential Health Care Plan, Inc. - PruCare of Tulsa (Tulsa, OK)
Prudential Health Care System - PruCare of Jacksonville (Jacksonville, FL)
Qual-Med, Inc. (Monte Vista, CO)
Qual-Med - New Mexico Health Plan (Albuquerque, NM)
Qual-Med - Oregon Health Plan (Portland, OR)
Qual-Med - Washington Health Plan (Bellevue, WA)
Rhode Island Group Health Association, Inc. / RIGHA (Providence, RI)
Riverside Health Plan (Bridgewater, PA)

Rochester Area HMO, Inc. (Rochester, NY)
Rutgers Community Health Plan- Div. Of HIP / Rutgers HealthPlan (Somerset, NJ)
Samaritan Health Plan (Phoenix, AZ)
Samaritan Health Plan Insurance Corporation (Milwaukee, WI)
Sanus Health Plan, Inc. (St. Louis, MO)
Sanus New York Life Health Plan - Houston (Houston, TX)
Sanus Texas Health Plan, Inc. - Dallas/Fort Worth (Irving, TX)
Scan Health Plan (Long Beach, CA)
Scott and White Health Plan (Temple, TX)
Security Health Plan of WI (Marshfield, WI)
SelectCare MedExtend, Inc. (Troy, MI)
Sentara Health Plan (Norfolk, VA)
Share Health Plan (Bloomington, MN)
Share Health Plan of Nebraska, Inc. (Omaha, NE)
Share Health Plan of Illinois, Inc. (Itasca, IL)
Southern Colorado Health Plan, Inc. (Pueblo, CO)
Southern Health Services (Richmond, VA)
St. Louis Labor Health Institute (St. Louis, MO)
Suburban Health Plan, Inc. (Shelton, CT)
TakeCare Corporation (Concord, CA)
Tennessee 1st, Inc. Healthplan (Knoxville, TN)
The Bronx Health Plan (Bronx, NY)
Total Health Care (Kansas City, MO)
Total Health Care, Inc. (Baltimore, MD)
Total Health Network of Iowa (Des Moines, IA)
Travelers Health Network - Dallas/Ft. Worth (Richardson, TX)
Travelers Health Network - Houston Division (Houston, TX)
Travelers Health Network of Austin, Inc. (Austin, TX)
Travelers Health Network of Ca., Inc. - Sacramento/Fresno (Sacramento, CA)
Travelers Health Network of Louisiana (Metairie, LA)
Travelers Health Network of New York, Inc. - Syracuse Div. (Syracuse, NY)
Travelers Health Network of New York,Inc.-Metropolitan Div (White Plains, NY)
Travelers Health Network of Texas, Inc. - San Antonio Div. (San Antonio, TX)
Travelers Health Network of Virginia, Inc. (Norfolk, VA)
Tufts Associated Health Plan (Waltham, MA)
Union Health Service, Inc. (Chicago, IL)
United Health Plan (Inglewood, CA)
United Health Plan (Columbus, OH)
University Health Maintenance Organization, Inc. (Cincinnati, OH)
University of Illinois HMO / Plan Trust (Chicago, IL)
VIP Health Plan / Ventura County HMO (Oxnard, CA)
Valley Health Plan (San Jose, CA)
ValuCare (Fresno, CA)
Welborn HMO (Evansville, IN)
West Alabama Health Services, Inc. (Eutaw, AL)
Western Ohio Health Care Plan (Dayton, OH)
Wisconsin Health Organization Insurance Corporation, Inc. (Milwaukee, WI)